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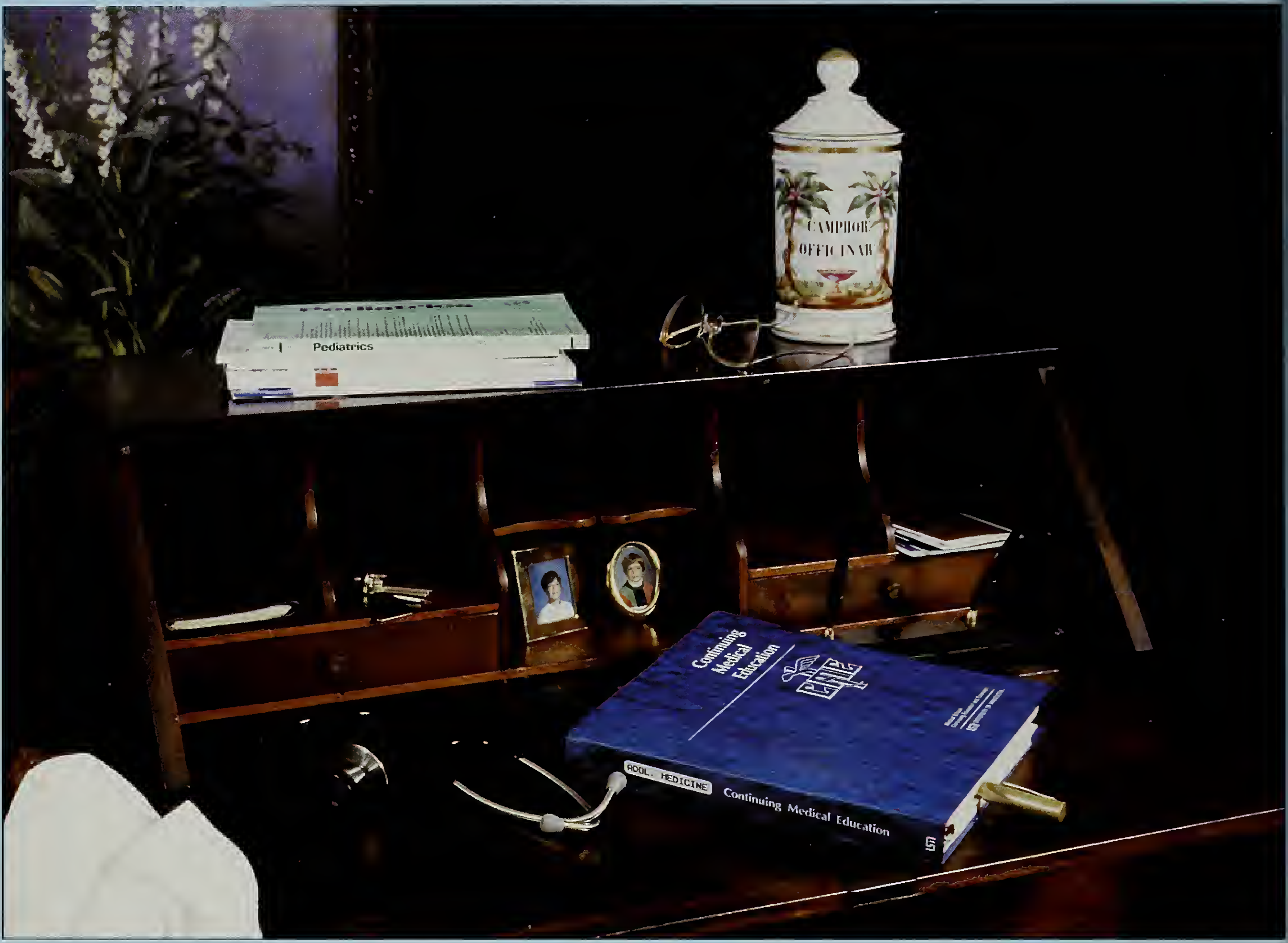

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COVER

Minnesota Medicine celebrates its 75th anniversary this month, and in recognition of the event, we take a look at both the history and future of medicine. Also in our special section, we examine how the profession has evolved in the past 75 years and how it will change in coming years. Despite the vast changes that have occurred in medicine since 1918, we found that many of the early volumes of our state journal consider issues of contemporary significance.

Photo by Scott Knutson of Minneapolis.

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Professionally Speaking:

"Becoming a teaching hospital cancer program recognizes the total spectrum of services a cancer center has to offer."

Charles Murray, M.D.
Oncology Services Medical Director

As the medical director of oncology services at Methodist Hospital, I am proud to announce Methodist was recently designated as a teaching hospital cancer program by the Commission on Cancer of the American College of Surgeons. As rare as it is for a community hospital to achieve such recognition, it is the natural culmination of years of dedicated work and community commitment by medical specialists, health care personnel and hospital administration.

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Methodist has long been recognized as a regional leader in cancer care. Receiving the highest designation awarded by the Commission on Cancer reinforces not only our reputation, but, more importantly, our commitment to our patients and the field of oncology. For more information or to discuss oncology services, clinical treatment or practice at Methodist, contact any of the oncology specialists at Methodist through the Physician Connection, 1-800-932-2212 (Twin Cities area, 932-5777), or call me personally at 932-5700.

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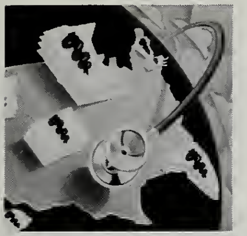

COVER

Health care reform has become a pressing policy issue, and, with the federal government deadlocked, states have begun to attack the problem. Hawaii, Oregon, Massachusetts, Vermont, Colorado, Florida, and Minnesota all have proposed or passed health care reforms, described in this month's cover story (page 14), becoming state "laboratories" for developing and testing solutions to the health care crisis.

Cover art by Cindy Lindgren of Minneapolis.

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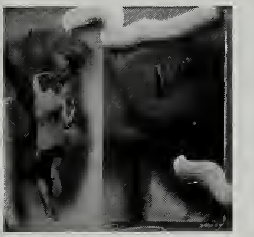

COVER

As chronic pain gains greater recognition and attention, pain treatment centers are springing up both inside and outside of hospital settings with a wide array of new and old treatments, says this month's cover story (page 14). Pain is elusive and difficult to treat, but physicians now have more options than ever before when seeking pain relief for patients.

Cover illustration by Carl Wesley of Minneapolis.

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COVER

The University of Minnesota Hospital and Clinic is experiencing a steady decline in patients that threatens its survival as well as its ability to educate medical students, says this month's cover story (page 16). To combat this downward trend in admissions, the hospital has approved a bold strategic plan it hopes will ensure its ability stay in the game of institutional survival.

Photo courtesy of the University of Minnesota Biomedical Graphic Communications Department.

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COVER

SHAPE UP! Everyone from the AMA to the Minnesota Health Care Commission is sending the public this message, says our cover story (page 14). Personal habits result in billions of dollars in health care costs each year, and doctors are being asked to promote wellness. Many argue there's not enough time for hand-holding, but patients overwhelmingly prefer doctors as their source of advice on changing unhealthy habits.

Illustration by Kate Mueller of Minneapolis.

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COVER

Public health physicians care for thousands of patients without leaving their office. Their diverse roles range from teaching in universities to tracking the sources of multistate disease outbreaks and developing preventive medicine programs. The two public health docs profiled this month (page 18) wear many hats as they practice medicine on scales both grand and small.

Cover photo by Rob Levine and hand-coloring by Scott Knutson of Minneapolis.

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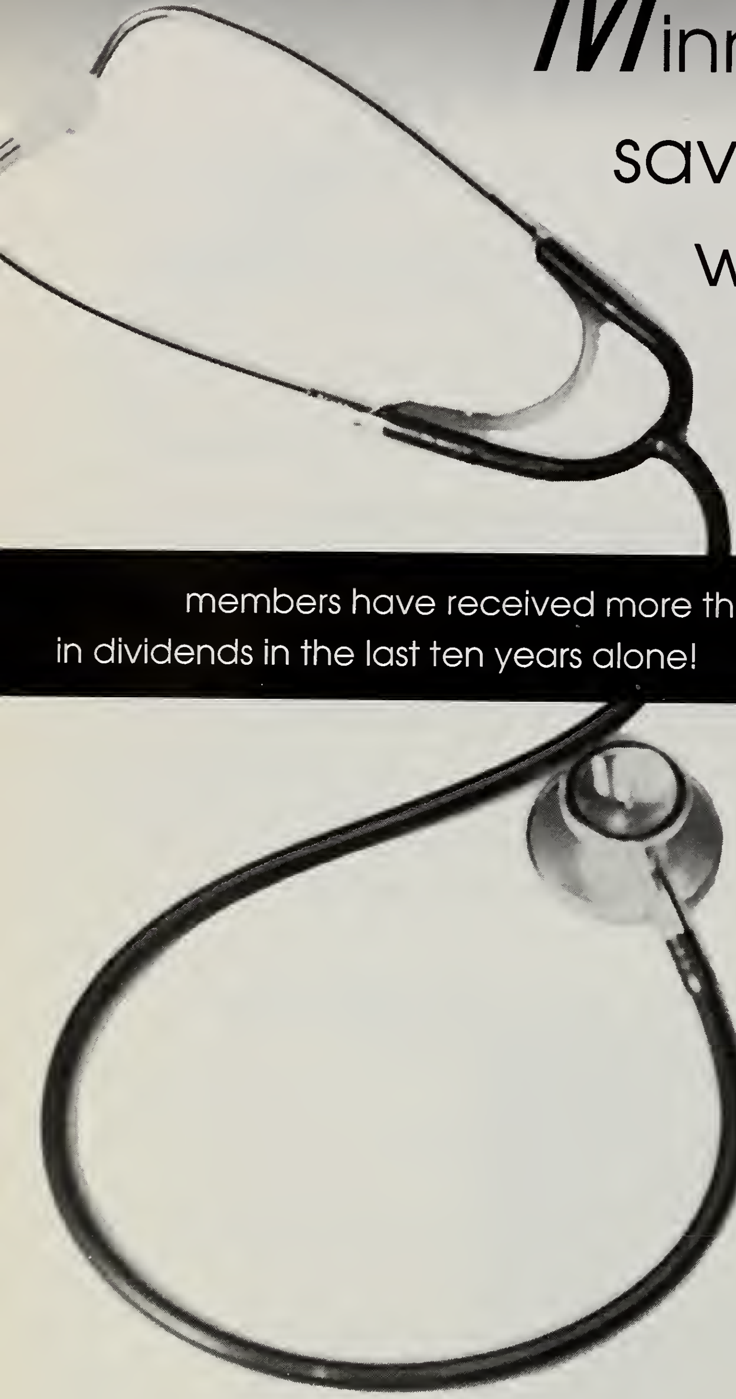

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COVER

Gene Therapy has exploded as a new field in medical research, says our cover story (page 12), offering hope for many new cures. As University of Minnesota researchers pioneer new protocols, and as the Mayo Clinic prepares to launch a new program in molecular medicine, Minnesota has the potential to become a leading center for gene therapy within the decade.

On the cover: color-enhanced human chromosomes. ©Biophoto Associates/Photo Researchers.

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Breast-Conservation Treatment

AT LEAST ONE-THIRD OF ALL BREAST CANCER PATIENTS COULD HAVE LUMPECTOMY FOLLOWED BY RADIATION THERAPY

The American Cancer Society, the American College of Surgeons and the American College of Radiology have agreed that women whose early breast cancer was detected by mammography are candidates for breast-saving treatment. This treatment consists of lumpectomy with axillary node sampling followed by radiation therapy to the breast. According to new standards, women with small lumps, those with tumors as large as two inches, and even some women with positive nodes may be candidates for this treatment. The purpose of the breast-conserving treatment is to treat these patients adequately but with a good cosmetic result. Stage for stage, patients treated in this manner have the same longevity and the same freedom from local recurrence as those treated with mastectomy.

For copies of the standards please contact
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A JOURNAL OF CLINICAL AND HEALTH AFFAIRS

COVER

Political and random violence increasingly threaten health care workers, says our cover story (page 10), whether at clinics, medical research facilities, or emergency departments. In Minneapolis, HCMC has increased security to prevent violence from spilling over into its emergency department, says our Face to Face article, page 6. The medical community is calling on the government and the courts to provide better protection (see President's Letter, page 31).

Cover illustration by Elizabeth Lada.

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Breast of chicken

3-oz. cooked serving
of chicken breast

Best of pork

3-oz. cooked serving
of pork tenderloin

Today's Pork: Compare it to chicken for a healthy surprise

You may not have considered pork to be a healthy choice for your patients on fat-modified diets. But today's fresh pork compares surprisingly well to chicken in total fat, saturated fat, cholesterol, and calories.[1,2*]

Compare pork with chicken[1,2*]

	Calories	Total Fat	Saturated Fatty Acids	Cholesterol
Chicken Breast, skinless	140	3.0 g	0.9 g	72 mg
Pork Tenderloin, trimmed	139	4.1 g	1.4 g	67 mg
Pork Top Loin Roast (boneless), trimmed	165	6.1 g	2.2 g	66 mg
Center Loin Chop, trimmed	172	6.9 g	2.5 g	70 mg
Chicken Thigh, skinless	178	9.2 g	2.6 g	81 mg

*Table refers to 3-oz, cooked servings.

New study: Pork is now 31% leaner

Pork is leaner today because of significant changes made in breeding and feeding techniques.[1] According to new 1992 official USDA data, fresh pork sold today contains an average of 31% less fat after cooking and trimming than the same pork cuts reported in 1983.[1]

Today's pork fits well within the dietary guidelines recommended by both the American Heart Association and the National Cholesterol Education Program. Here's some advice to help patients on low-fat diets enjoy the variety, extra taste, and versatility of pork:

- Choose the leanest cuts. Shop for cuts with "loin" in the name.
- Trim away any visible fat.
- Keep portions moderate (about 3 oz, cooked).
- Prepare by broiling or roasting, and avoid additional fat in preparation.

1. US Dept of Agriculture. *Composition of Foods: Pork Products*, 1992. Agricultural handbook 8-10.
2. US Dept of Agriculture. *Composition of Foods: Poultry Products*, 1979. Agricultural handbook 8-5.

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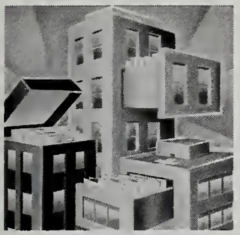

COVER

Public and private efforts to manage cost and quality through data collection and outcomes measurement will no doubt affect the way physicians conduct business, says our cover story (page 14). Changes resulting from MinnesotaCare's data initiatives may prove the most sweeping, with several new state entities soon collecting, analyzing, and disseminating a wide range of information from nearly all health care providers (see Medicine Law & Policy, page 35).

Cover art by Cindy Lindgren.

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COVER

Compulsive gambling is affecting a growing number of Minnesotans as lottery and casino industries continue to expand, says our cover story (page 10). Some gamblers are turning up at physicians' offices with serious physical problems, and most treatment centers are filled to capacity. Experts continue to debate whether compulsive gambling is a medical problem, but most agree that a rise in problem gambling is a sure bet.

Cover photo by Rob Levine.

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October 9
St. Paul

Internal Medicine Review
October 13–15
Minneapolis

Annual Conference for Nursing Home Medical Directors
October 15–16
St. Paul

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October 21–22
Minneapolis

E.T. Bell Fall Pathology Symposium
November 5
Minneapolis

Cancer and the Nervous System
November 12
Minneapolis

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November 19–20
Bloomington

1994

Geriatric Drug Therapy Symposium
February 23–24
Minneapolis

Prevention and Management of Atherosclerotic Diseases
February 25
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March 7–11
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Radiology: Brain to Pelvis 94
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Beaver Creek, Colorado

Family Practice Review and Update
April 25–29
Minneapolis

Topics and Advances in Pediatrics
June 15–17
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June 15–18
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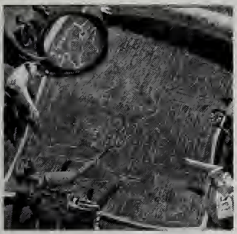

COVER

The health system **reform** package proposed by President Clinton is designed to change the nation's health care system fundamentally by guaranteeing all Americans a basic set of health care benefits. Clinton's blueprint for reform would affect everything from the type of insurance form we use to the percentage of the GNP spent on health care. Our cover story, page 10, reviews the plan's basic framework.

Cover art by Kate Mueller.

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COVER

Children's health in Minnesota is consistently ranked high nationally, but a growing minority of our children are not all that healthy, in part because of socioeconomic conditions not easily treated by the medical profession, says this month's cover story (page 10). Worrisome infant mortality and immunization rates are bringing together physicians, public health officials, and community groups to combat these problems.

Cover photo of children at Capitol Child Care in St. Paul by Brian Parmeter.

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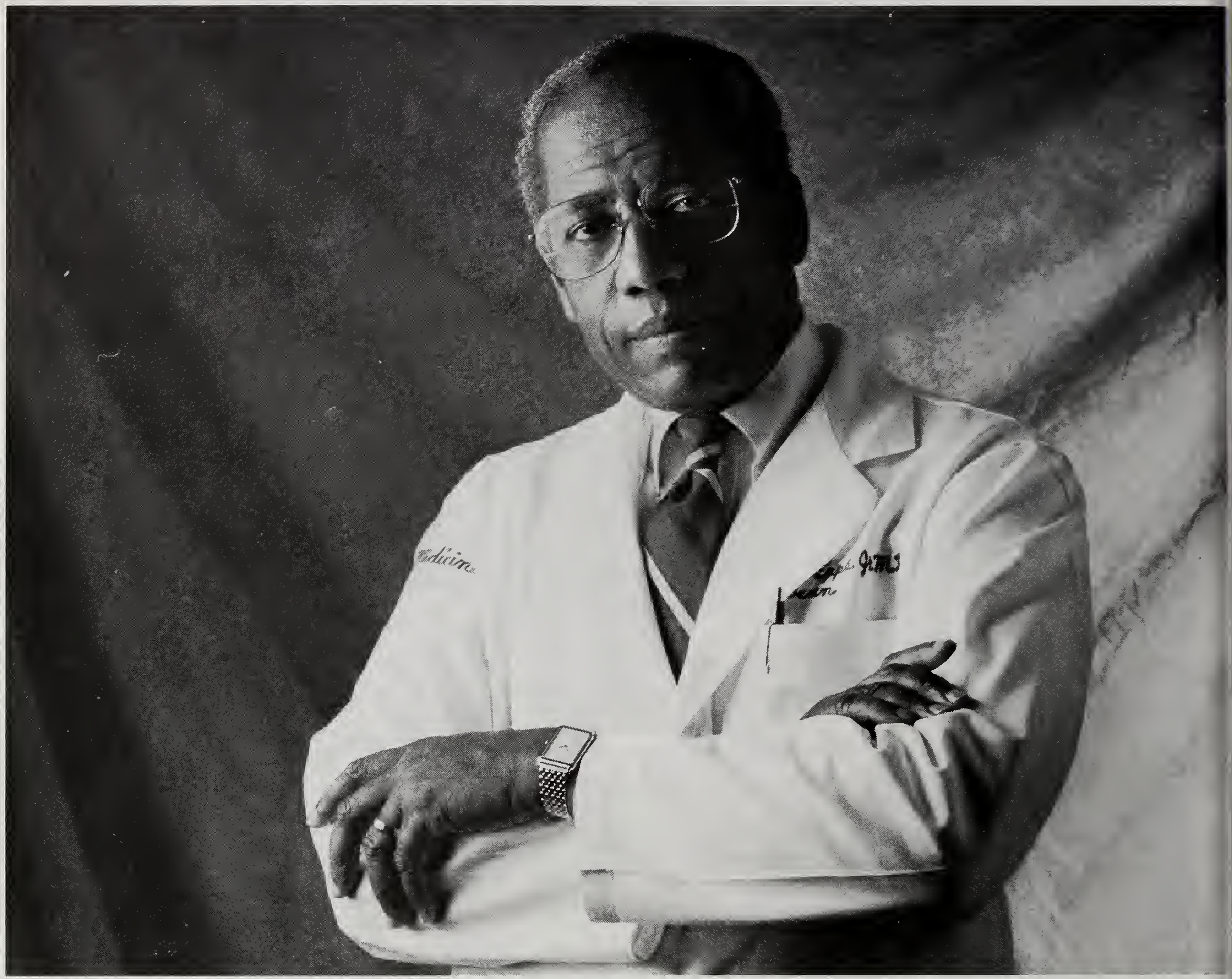

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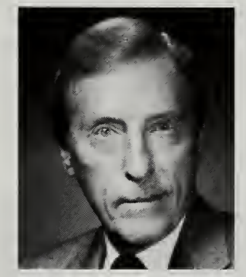
Minnesota Medicine Celebrates Its Past

Edmund C. Burke, M.D.

The past, present, and future of medicine converge in this issue of *Minnesota Medicine*, which marks our 75th anniversary of publication. In honor of the event, we have compiled a special anniversary section that looks at the history of medicine from 1918 to the present and briefly explores the future, predicting many of the changes physicians might experience in the next three-quarters century. In addition to articles on these topics, we have included excerpts and advertisements from early issues of *Minnesota Medicine*. I think you'll find the historical nature of these pieces rather intriguing—patriotism was a predominant theme throughout those early years with the United States fighting WWI, and medicine was at the dawn of a new era.

And we haven't neglected the present. When another 75 years have passed, physicians looking back at this issue may be surprised by the topics of concern to our profession today. We discuss MinnesotaCare in an interview with Jasper Daube, M.D., the MMA's appointed physician to the Minnesota Health Care Commission (page 7), and in a Legislative Preview, we highlight issues that are likely to be debated by the 1993 Minnesota Legislature (page 11). Our Medicine Law & Policy article describes the state Justice Department's intensified efforts to fight health care fraud (page 41).

With *Minnesota Medicine*'s first issue in January 1918, the Minnesota Medical Association joined the ever lengthening line of states that owned and published individual monthly journals, says the salutatory editorial in that first issue (see reprint, page 15). The Editing and Publishing Committee had high ideals and goals for the journal and apparently succeeded immediately; the *Journal of the American Medical Association* complimented *Minnesota Medicine* during its first year of publication for its high standards, according to a *Minnesota Medicine* editorial in February 1919. "*Minnesota Medicine* enters upon the second year with every confidence in the future," says the editorial, which praises the journal's first-year accomplishments.



"I am struck by how times have changed; yet many topics discussed in the early issues of our journal have a familiar ring."

Looking back at our first issues from 1918, I am instantly struck by how times have changed; yet, upon further review, I find that many topics discussed in these early issues have a familiar ring. Physicians of 75 years ago were concerned about the decline of the general practitioner, the growth of medical specialties, and about controlling the spread of tuberculosis; one article describes malpractice and a physician's obligations to the patient—all issues of contemporary significance.

Physicians of 1918 were patriotic and devoted to fighting the war. Throughout *Minnesota Medicine* were admonitions to join the Medical Reserve Corps and pleas to conserve food and energy for the war effort. "Others are giving their blood. You will shorten the war—save life if you eat only what you need and waste nothing," reads one of many public service announcements published during the war.

Today, illnesses that were common early this century, such as poliomyelitis and diphtheria, are rarely encountered. Influenza was a serious concern in 1918, and an obituary in the November issue pays tribute to Dr. Edward C. Slater, a University of Minnesota physician who died of pneumonia following influenza, just a few short months after receiving his degree of Bachelor of Medicine. Tuberculosis was a prominent topic of concern, and advertisements for tuberculosis sanatoria are scattered throughout the journal's early volumes.

Clinical reports in that first year offer a sometimes frightening glimpse of medicine at the time. One physician wishes to dismiss the notion that tonsillectomy is a cure for rheumatism. Articles on elephantiasis and its treatment occasionally appear in the journal, and an editorial points out the importance of treating eyes of newborn infants with silver nitrate solution. How medical science has changed!

Join us as we explore the history and the future of Minnesota's medical profession and as we mark our place in a proud tradition. MM

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Health Care Reform: A Voice for Minnesota Physicians

Minnesota Medicine interviews Jasper R. Daube, M.D.

With the state Legislature's January 15 deadline fast approaching, the Minnesota Health Care Commission—created by MinnesotaCare legislation—has been working hard to develop its strategy for cutting the growth in health care costs by 10 percent a year for five years. The commission, which first began meeting in August, is just completing the first phase of its mission—the preparation of its cost-containment plan.

Until January 15, the commission's recommendations for reducing health care costs remain incomplete, but its preliminary plan outlined in December proposed changing to a system of integrated service networks to promote competition while simultaneously encouraging and actively supervising collaboration. In other words, the commission was discussing "managed competition," says Jasper Daube, M.D., the MMA's physician appointed to the commission, in the following interview. In addition to managed competition, the preliminary plan called for various means to protect the consumer, provide services for the community good, and encourage healthy lifestyles.

Dr. Daube is one of 25 members—representing providers, consumers, health plans, employers, labor, and state government—on the Health Care Commission. The MMA appointed him as its physician representative. His mission is to do what he can to prevent changes that would interfere with the physician-patient relationship, he says.

Dr. Daube, who has served on the MMA Committee on Legislation since 1988, is chair of the Department of Neurology at Mayo Clinic and is a professor of neurology at the Mayo Medical School in Rochester. He has been a visiting professor at 22 universities throughout the world and has published numerous journal articles and books. In addition, he is an ad hoc editor for a number of professional journals, a member of the editorial board for Muscle & Nerve, *and he has chaired the Joint Committee on Accreditation in Clinical Neurophysiology.*

Jasper R. Daube, M.D.

"We want to give consumers incentives to use the health care system more efficiently."

Minnesota Medicine: Dr. Daube, tell us how you came to be appointed to the Minnesota Health Care Commission.

Daube: I've been active in legislative issues for quite some time. I've always felt that it is important for us as physicians to spend our time not only taking care of patients, but also to be aware of the broader issues that affect us. I've been active in local politics in Rochester, on legislative committees at Mayo Clinic, and over the last few years, on the Legislative Committee of the Minnesota Medical Association. That participation made me increasingly aware of the issues before us and gave me experience that may be beneficial to me as the MMA representative on the Minnesota Health Care Commission. The MMA Task Force on MinnesotaCare, chaired by Dr. Barbara Yawn, selected me for the position after reviewing applications and conducting interviews. Dr. Andrew Smith, chair of the MMA Board of Trustees, is my alternate. We both have been very active on the commission since it began its work in August.

Physicians and Reform

Minnesota Medicine: How many physicians are on the commission?

Daube: It is a 25-member commission. Two positions were specifically slotted for physician appointments: the MMA representative (my position) and a governor appointee, Dr. Robert Kelly, a rural physician from Grand Rapids, Minnesota. The HMOs appointed a third physician, Dr. James Ehlen, who is CEO of Medica.

Minnesota Medicine: How do you view the physicians' role on the commission?

Daube: Our role is primarily to bring to the attention of the commission, which is made up of a wide variety of people from many different backgrounds, the issues we know so well. The other groups clearly look at health care from different points of view. The insurance representative, the administrative HMO representatives, the employers, the Chamber of Commerce all have different perspectives. My task is to remind them of the knowledge and experience that we physicians have and bring those considerations to bear in our decision making.

Minnesota Medicine: How do you think others on the commission view you and the MMA?

Daube: On the commission, we have been getting to know and appreciate one another as we have worked closely over the past three months. I have been comfortable with our interactions, and I believe the other members have seen me as bringing an important, special perspective to the deliberations. Drs. Barbara Yawn and Stuart Hanson, MMA president, gave excellent presentations to the Health Care Commission on the MMA's concerns. The commission members received that very well and have commented positively on the MMA's input.

> "I have to attempt to correct the perception that physicians are not sufficiently responsive to health care consumers."

Minnesota Medicine: Did the MMA send you to this commission with any sort of a mission?

Daube: Yes, I have a number of charges and responsibilities. Probably the most important is to let the commission know that whatever legislation and rules are promulgated, they will affect the health care of individual people, and that we as physicians act one-on-one with those patients. My most critical charge is to do what I can to prevent interference with that physician-patient interaction. Obviously, we have to deal with many other issues, but I see that as the most important for me.

Minnesota Medicine: I think everybody in the nation, but particularly in this state, is aware of what's been termed the "health care crisis." How do you think consumers view the physician's role in this crisis?

Daube: As the MMA representative on the commission, I get a great deal of input from many people—not only physicians. I would say consumers view us in two different ways. People describe the high quality care they receive and their satisfaction with their own personal physicians; however, when they talk about us as a group, their comments are much less positive. Many consumers seem to have a strong sense that our decisions are often self-serving. I have to attempt to correct the perception that we are overpaid and are not sufficiently responsive as a group to the needs and concerns of health care consumers in the state.

The Health Care Commission's Objectives

Minnesota Medicine: The Health Care Commission has been working fast and furiously to prepare its report to the Legislature by January 15. What do you expect to be the major elements in the report?

Daube: If I had to focus on one overriding aspect of the report, I would emphasize the recommendation for change of the health care delivery system to integrated service networks—perhaps better known nationally as "accountable health plans," as described in the federal legislation promoting managed competition. "Managed competition" really describes the direction we are taking.

Minnesota Medicine: Please describe in more detail what you mean by integrated service networks and managed competition.

Daube: Managed competition is a system of health care delivery in which formally organized groups are responsible for delivering the full basic continuum of health care to a defined population. These groups, which we are calling "integrated service networks," will be responsible for both the outcome and cost of the health care they provide. Consumers will select their health care providers from several integrated service networks, thereby preserving competition to provide the best care at the best price. Integrated service networks will be expected to develop collaboration among providers, which, in the past, had been restricted by antitrust laws. This brief description cannot provide adequate insight into what integrated service networks will be like, but they will be something quite different from current managed care programs.

Minnesota Medicine: What are the commission's short-term goals?

Daube: Our short-term goal is to get a plan to the Legislature by January 15 that begins the process of controlling costs and has enough meat on it to prevent the Legislature from giving it back to us or from making major changes in the bill on its own because we haven't done our job.

Minnesota Medicine: What about your long-term goals?

Daube: Our long-term goals are to put into place a health care delivery system that reduces the rate of increase in health care costs while maintaining, and preferably improving, the quality of health care and access to it. Those goals are the heart of our involvement. We are wrestling with how we can accomplish these long-term goals while introducing some shorter-term fixes to reduce the rate of health care cost increases.

Minnesota Medicine: Is there a sunset provision on this commission? Will the commission cease to exist at a particular time?

Daube: No, I think we are considered a permanent commission that will be overseeing health care delivery in the state indefinitely. The commission members have staggered appointments; mine is for four years.

Minnesota Medicine: It is my impression that the general MMA membership probably understands very little of the MinnesotaCare legislation. It's terribly complex. The MMA has the difficult and major responsibility for trying to keep the membership informed.

Daube: I couldn't agree with you more. One of my charges is to meet with groups around the state that would like to learn more about MinnesotaCare and the commission's work. As I have traveled around the state, I have found that physicians are very busy caring for their patients—as they should be—and the range and complexity of what's in the bill make it difficult to master in a short time. In fact, there are many aspects of the bill that the Health Care Commission is not involved with at all, for example, the insurance reform components and expansion of the Children's Health Plan. The commission is charged specifically with developing the cost-containment program for health care.

Changes in Store for Patients and Physicians

Minnesota Medicine: Do you think health care quality will be sacrificed by cost-control efforts?

Daube: Not if we can help it. However, the answer to that question may depend on one's perspective. Clearly, some patients feel a real need for a particular approach to their care. Demands and expectations that are not appropriate will be limited and might be seen as rationing. The Health Care Commission will try to help physicians restrict the use of treatments and procedures that do not add to the quality of health care. Undoubtedly, it will be difficult for the state to draw guidelines that interfere as little as possible with the physician's flexibility to do what's right, and some people are going to feel we have gone to far.

Minnesota Medicine: That certainly becomes a difficult ethical issue for both physicians and the public. What sort of changes will consumers have to make to help control health care costs?

Daube: One of our subcommittees is specifically dealing with preventive medicine, public health, and consumer incentives. Its task is to recommend legislation or rules to help consumers recognize their part of the bargain. A great number of measures related to consumer behavior can significantly reduce the cost of health care, for example, helmet laws, smoking cessation programs, prenatal care, childhood immunization, and appropriate utilization of the health care system. We are trying to define ways to give consumers incentives to modify unhealthy behaviors and to use the health care system more efficiently.

Minnesota Medicine: Will Minnesota's health care reform efforts alter the way physicians practice medicine?

Daube: To the extent that the physicians in this state practice high-quality medicine, I hope not. We don't want to change that part. But some areas remain where we can improve quality and access while controlling costs. Making these improvements will result in some changes in the way physicians practice medicine. We want to minimize those changes, most of which will have to do with the relationships physicians have among themselves and with the rest of the health care industry. For example, physician groups will probably be a little less independent than they have been in the past as the state promulgates new rules related to MinnesotaCare.

State vs. National Solutions

Minnesota Medicine: Do you think Minnesota's health care reform efforts are moving in the right direction?

Daube: Clearly, society has decided health care reform is necessary because of inadequate access and high cost. If we look at three federally sponsored approaches to reform—a single-payer system under government control, a multiple-payer system under government control, and managed competition—Minnesota is clearly moving toward the third. In my judgment, that is the best choice if we have to take one of the three.

Minnesota Medicine: Minnesota is one of a number of states working on health care reform. How do you think national reform efforts will affect these local efforts?

Daube: What the federal government does could have a major impact and might completely override what we are attempting to do in Minnesota. I have no direct contact with federal legislation, but as a bystander and observer, I think some of our state leaders are attempting to make the federal government aware of our efforts to control costs and improve access. They hope to show the federal government that we have a reasonable solution that may be better than what's attempted federally. Of course, it may well be that the federal government will follow a similar direction. I've been told that the conservative Democratic coalition will offer something much like what we are doing here as one of the choices at the national level.

A Message to Minnesota Physicians

Minnesota Medicine: How can Minnesota physicians assist you with your work on the commission?

Daube: My work on the Minnesota Health Care Commission has been markedly enhanced by the strong support I've received from the MMA staff and committee members. Additionally, input from the groups I visited around the state has been very helpful in giving me insight into a much broader range of medicine than I have had experience with before. So, I urge readers to remain involved by participating on MMA committees or offering direct feedback to the association. The MMA will be setting up a toll-free phone number to provide updates on MinnesotaCare and will continue to publish information in the *Monitor, Minnesota Medicine,* and special mailings. Let the MMA know, or let me know directly, about your concerns. I need your guidance to represent individual physicians and organized medicine in Minnesota. MM

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A Preview of the 1993 Legislative Session

MMA Department of State Legislation

The time is upon us once again—the beginning of the Minnesota legislative session. Starting the fifth of January, 201 legislators from across the state will gather in St. Paul to convene the 78th Session of the Minnesota Legislature.

For many legislators this means a return to the familiar surroundings of the Capitol and a continuation of many years of service. But for a large number of newly elected legislators, the 1993 session marks the start of something new—with challenges unique to state office.

Nearly one-quarter of both the Senate and the House of Representatives is new this year, with 16 new senators and 33 new representatives. However, even with all the new faces, the party in power remains the same; the Democrats control 45 of 67 seats in the Senate and 87 of 134 seats in the House.

Different in both the Senate and the House this year is the committee structure. The most dramatic changes are in the House, where the once-powerful Appropriations Committee has been abolished and replaced with issue-specific finance divisions more closely tied to policy committees. As an example, what was the Health and Human Services Committee has been replaced with the Human Resources Committee, chaired by Rep. Wayne Simoneau, DFL-Fridley. Associated with this committee are two divisions, the Health Regulation Finance Division, chaired by Rep. Bob Anderson, DFL-Ottertail, and the Human Resources Finance Division, chaired by Rep. Lee Greenfield, DFL-Minneapolis. In the Senate, the old Health and Human Services Committee has been divided into two committees, the Health Care Committee, chaired by Sen. Linda Berglin, DFL-Minneapolis, and the Family Services Committee, chaired by Sen. Pat Piper, DFL-Austin.

1993 Health Care Issues

The coming year will be another important one for medicine. At this point, two factors make it difficult to predict precisely which issues will appear on the legislative agenda. First, the Minnesota Health Care Commission is required to report to the Legislature January 15. As *Minnesota Medicine* goes to press, the report has not been completed, but when the final report is circulated and reviewed by legislators and others, new legislation will certainly result.

> "The MMA plans to pursue legislative changes to MinnesotaCare that will improve the overall act."

Second, the state is facing a projected budget shortfall of $759 million for the two-year period beginning July 1, 1993. Because of this deficit, the message to legislators is "No new spending." The governor has instructed all state agencies, including the Department of Human Services and the Minnesota Department of Health, to prepare lists of areas where spending cuts can be made.

Because the session is just beginning, we can't identify all the issues the Legislature will consider (legislation will continue to be introduced right up to the committee deadlines in April), but below we briefly summarize some of the more important issues we expect to be debated.

MinnesotaCare

Implementation of the MinnesotaCare Act (formerly the Health Right Act) has begun. The Minnesota Medical Association has been closely following the Minnesota Health Care Commission and the work of other state agencies as they make decisions and develop rules. Although the MMA is concerned with portions of the act, the Board of Trustees' position is to do whatever the association can to make MinnesotaCare work for patients. This means appointing the best physicians available to serve on the many commissions and advisory committees, assisting in getting information about the new program to eligible patients, and pursuing legislative changes that will improve the overall act.

The MMA plans to seek the following improvements to MinnesotaCare: elimination or modification of the 2 percent tax on health services, a change in the prohibition on Medicare balance billing so it is based on a patient's ability to pay, and replacement of the term "centers of excellence" with a more appropriate term that does not imply "centers of *non*-excellence." In addition, the MMA has committed itself to greater involvement in public health initiatives. If we truly want to reduce the cost of health care, one of the best and easiest ways to do so is by improving individuals' health status so they don't need to use the health care system. The MMA is still developing its approaches to these issues and is gathering data on their impact on physicians and clinics. Also, the MMA

Committee on Legislation, chaired by David L. Swanson, M.D., a dermatologist from Robbinsdale, will be meeting throughout the legislative session to review these issues and others in an attempt to keep the MMA's positions up to date.

Family violence

Domestic abuse, child abuse, and other forms of family violence are not only major social problems, but are also serious health problems in our society. The physical and psychological injury caused by family violence is overwhelming—and costly. The MMA will undertake initiatives to combat family violence through educational programs and support services and intends to increase societal awareness that abuse of any form is unacceptable.

Smoke-Free 2000

As funding for new health care programs becomes increasingly scarce, and as we attempt to eliminate the use of tobacco products, efforts need to be made to further increase the tax on cigarettes and other tobacco products. The MMA maintains the position that the tax on cigarettes should be raised to reflect more accurately the true health care costs attributable to smoking.

Another initiative being considered is repeal of legislation referred to as the "smokers' rights" bill. This legislation, passed last year, prohibits employers from discriminating against employees who use "lawful consumable" products, unless the restriction is for conflict of interest reasons or a bona fide occupational requirement.

Physician license surcharge

As of October 1, 1992, all physicians licensed in Minnesota are taxed an additional $400 by the Department of Human Services. This money goes into the state's general fund and is used to increase Medical Assistance reimbursements to physicians and other providers. This surcharge is most problematic for retired physicians who want to keep their licenses active, resident physicians who are still in training, and out-of-state physicians who hold Minnesota licenses. The MMA will seek modifications to this surcharge, with the ultimate hope of repealing it altogether.

Scope of practice

The optometrists most likely will be introducing legislation for expanding their prescribing authority to include therapeutic drugs. In the past, the MMA has opposed such legislation.

> "If elected decision makers don't hear from you, they won't know your problems and concerns."

Also, the Minnesota Society of Radiologic Technologists is pursuing legislation to establish a Radiologic Technology Board of Examiners to license radiologic technologists. This bill would require any person other than a physician who does x-rays to be licensed by this new board. This could place a severe hardship on many smaller clinics and prohibit trained personnel from administering x-rays.

Durable power of attorney

The Minnesota Bar Association has been working on legislation that would allow a person to appoint a durable power of attorney to make health care decisions. This legislation would provide needed clarification to our existing living will law and would allow more flexibility for individuals to declare their personal wishes regarding medical treatment should they later become incompetent. This initiative is consistent with the MMA's policies.

Off-label drugs

The Minnesota Society of Clinical Oncology is introducing legislation to require health plans and insurers to cover the use of appropriate off-label drugs for treatment. The drug is considered appropriate if 1) it has been approved by the FDA, 2) it has been recognized through peer-reviewed medical literature as being effective, and 3) it is recognized as effective by one of the three major drug compendia. This legislation is consistent with both MMA and AMA policy.

Conclusion

This will be a long and difficult legislative session; it is scheduled to finish May 22. Undoubtedly, much of the discussion will revolve around balancing the state's budget.

The days of physicians watching the activities of the Legislature from the sidelines no longer exist. State and federal government influence on physicians' practices will continue to grow. Elected decision makers need your input. If they don't hear from you—the practicing physician—they won't know your problems and concerns. Keep informed. Know who your legislators are and make sure they know you. Contact them when an issue arises and offer to provide the help they need. MM

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Celebrating 75 Years

In January 1918, the Minnesota State Medical Association published the first issue of Minnesota Medicine. *Throughout the past 75 years, the objective of the journal has been to inform association members of the medical, legal, and ethical issues affecting the practice of medicine in Minnesota. This special section of* Minnesota Medicine *revisits some of the issues and events that have shaped medicine over the last three-quarters century and provides a glimpse of the future. As in the past, improved technology will create new medical, legal, and ethical questions, as well as change the role of the medical profession.* Minnesota Medicine *will continue to chronicle and interpret those changes for the physicians of this state.*

Special thanks to the Boeckmann Library, St. Paul; the Historical Library of Metropolitan-Mount Sinai Medical Center, Minneapolis; and the Owen H. Wangensteen Historical Library of Biology and Medicine, Minneapolis, for their generous provision of historical materials.

VOL. I JANUARY 1918 NO. 1
EDITORIAL

Salutatory of 'Minnesota Medicine'

by the Editing and Publishing Committee

With this issue of *Minnesota Medicine*, the Minnesota State Medical Association has joined the ever lengthening line of states that own and publish individual monthly journals. State journals constitute a distinct class in medical journalism, and have certain functions that the many excellent special and general medical periodicals can not possibly fulfill. By their frequent appearance on the desks of the members of the State Association, the members are reminded that they are integral and necessary parts of a wide-awake organization and will be kept informed of whatever is happening in medical circles in their own state and, by their journal's close affiliation with the exceedingly efficient organization built up around the Journal of the American Medical Association at Chicago, with national and international affairs of importance in the world of medicine.

Thirty-five states are now officially represented by ethical publications; Minnesota, North and South Dakota, Montana and Wyoming constituted the largest block of states without official ethical state journals until *Minnesota Medicine* appeared on the horizon. May its example spread westward until this blotch is entirely removed from the map!

Minnesota Medicine is the twenty-eighth state publication to fall in line. Although a little late in coming into the ranks it is vastly better to be late than not to have arrived at all. Now that the Minnesota profession has taken this step it is a foregone conclusion that it will never regret it and will soon feel the value of the bond its own journal will make between its various component county and district associations, and above all, the bond that will bind the entire membership into a more homogeneous whole. There is no better instrument to do this thoroughly than a mutual interest in the success of undertaking that requires team work from top to bottom for its success, and at the same time furnishes the measures by which the state organization and the profession of the state will be given its rating by the profession of the country at large. By what other means could the purpose of the Minnesota State Medical Association, as outlined by its founders many years ago, be as thoroughly or as effectively accomplished? They are:

To federate and bring into one compact organization the entire medical profession of the State of Minnesota;

To extend medical knowledge and advance medical science;

To elevate the standard of medical education;

To secure the enactment and enforcement of just medical laws;

To promote friendly intercourse among physicians;

To enlighten and direct public opinion in regard to the great problems of State Medicine; so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of disease, and in prolonging and adding comfort to life.

Minnesota Medicine will be under the control of the Editing and Publishing Committee of the State Association. Mr. J. R. Bruce of the Northwestern Druggist is its advertising manager.

The policy of *the journal* on all questions will be to remain independent, not to be the mouthpiece of any individual or any group, and to work only for the best interests of the profession and the public.

The scientific papers read at the Annual Meetings of the State Medical Association will appear, as will many other papers read at the numerous meetings of the county, district and special societies of the state, subject to the approval of the Editorial Staff in consultation with the Editing and Publishing Committee.

There will be a department of medical news in which will be found from month to month items of general and local interest to physicians of the northwest.

The advertising policy of *Minnesota Medicine* will be strictly in conformity with the rules of the American Medical Association and its Council on Pharmacy and Chemistry,—everything appearing in the advertising pages being edited as carefully as the reading matter.

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Seventy-five Years of Medicine in Minnesota

Leonard G. Wilson, Ph.D.

The First Quarter Century, 1917-1941

When the first issue of *Minnesota Medicine* appeared in January 1918, the nation was in the midst of World War I, which the United States had entered in April 1917. On the outbreak of war, the U.S. government began organizing a large army to send to France. Months before, it had begun organizing some 50 base hospitals under the auspices of the American Red Cross to care for the wounded. In January 1918 Base Hospital No. 26, organized by the University of Minnesota Medical School with a staff drawn from the Medical School and the Mayo Clinic, was in training at Fort McPherson in Georgia. Six months later the hospital, with its complement of nearly 400 officers, enlisted men, and nurses, sailed for Europe. In July Base Hospital No. 26 was set up in France as part of a great hospital center at Allerey near Chalon-sur-Saône, and on July 23 it received its first trainload of wounded men. During the great battles of August 1918, Base Hospital No. 26 received trainload after trainload of wounded soldiers—as many as 1,000 men on one terrible day. By the time the hospital closed in January 1919, it had cared for more than 5,700 sick and wounded soldiers.

At Allerey during the fall of 1918, diphtheria broke out in the pneumonia ward of Base Hospital No. 26, which housed many patients who had been gassed. The epidemic was promptly brought under control by the hospital pathologist, Moses Barron, using methods he had learned during a similar diphtheria epidemic at the University of Minnesota Hospital in 1911. Capt. Barron isolated diphtheria patients and took throat cultures from both patients and their attendants to detect diphtheria carriers.

Moses Barron. Photo courtesy of Dr. Jesse Barron.

Moses Barron returned to Minnesota in July 1919. In late August, when doing a routine autopsy at the Minneapolis General Hospital on a patient who had died in a diabetic coma, Dr. Barron found the pancreatic duct completely plugged with calculi and most of the pancreas converted to fibrous connective tissue. Nevertheless, many of the Islets of Langerhans remained healthy, having degenerated only in parts of the pancreas showing inflammation. Barron's description of the unusual case of pancreatic lithiasis appeared in the October 1920 issue of *Surgery, Gynecology and Obstetrics*, where it was read at London, Ontario, by a young Canadian surgeon, Frederick Banting, who, like Barron, was recently returned from war service. Barron's demonstration that obstruction of the pancreatic duct did not destroy the Islets of Langerhans stimulated Banting to begin studies that resulted in the isolation of insulin in late 1921 and very soon thereafter in its availability for the effective treatment of diabetes mellitus, previously a uniformly fatal disease.

The campaign to control tuberculosis

At the end of World War I Minnesota had just opened 14 county tuberculosis sanatoria, including the large Glen Lake Sanatorium in

ORIGINAL ARTICLE

THE PRESIDENT'S ADDRESS BEFORE THE MINNESOTA STATE MEDICAL ASSOCIATION

ARTHUR J. GILLETTE, M.D.
ST. PAUL, MINN.

... The medical profession has responded more liberally to the call of the nation and has sent more of its members into military service than any other profession, trade or business in the country. The medical men throughout the country have been brought together face to face; and shoulder to shoulder the doctors are battling in unison as they have never done. They have thrown away all selfishness; they are sacrificing their business, home-comforts, and even their very lives for the benefit of humanity. And best of all it is being done in a cheerful spirit and our willingness is surprising even to ourselves. We are becoming more serious, more studious, more painstaking, and with it all we are learning great truths which will be of benefit to the health of the community. We are studying, investigating and working harder than we ever have before. The medical profession has never been so seriously united as it is today, and all for the benefit of humanity. There will be great

WWI soldiers recover at Base Hospital No. 26 at Allerey, France. Photo courtesy of Dr. Jesse Barron.

Hennepin County, serving Minneapolis, the tuberculosis wing of the City and County Hospital (now St. Paul-Ramsey Medical Center) in St. Paul, and the Nopeming Sanatorium in Duluth, which served the whole of St. Louis County. Eleven other county sanatoria were distributed throughout the state, each serving one or more counties. In 1907 Minnesota established a state tuberculosis sanatorium at Ah-Gwah-Ching overlooking the south arm of Leech Lake near Walker. Such an array of publicly supported institutions was needed because tuberculosis was then the most serious disease in the state; in 1918 almost 5,000 new cases of tuberculosis were reported, and the disease caused more than 2,500 deaths. Tuberculosis had been increasing in Minnesota since the beginning of settlement, and between 1910 and 1912 tuberculosis mortality rose about 20 percent. In 1918 it had not yet begun to fall, but with the opening of the new sanatoria, tuberculosis began a long, steady decline. By 1930 the tuberculosis mortality rate was half, by 1940 a quarter, and by 1950 less than an eighth of what it had been in 1918.

In 1919 Dr. Sidney A. Slater became superintendent of the newly opened Southwestern Minnesota Sanatorium at Worthington, serving eight counties with a total population of 127,000. Many of the patients came to the Southwestern Sanitorium with advanced tuberculosis and soon died, but others recovered to go home with no more treatment than strict bed rest and good food. Convinced that patients with tuberculosis had a good chance of recovery if their disease was detected early enough, Slater sought to use the tuberculin test as a screening device to find individuals infected with tubercle bacilli among apparently healthy people. When he gave tuberculin tests to a cross section of schoolchildren in the Worthington area, he found that overall 10 percent of the children were positive, but among children from families in which there had been tuberculosis, 80 percent reacted to tuberculin. In 1924 Slater's results startled the world. Many physicians had assumed that tubercular infection was practically universal; instead, it was restricted mainly to families in which tuberculosis was, or had been, present. The tuberculin test thus became a precise tool for locating infected individuals and unrecognized cases of active tuberculosis.

In 1921 the Lymanhurst School for Tuberculous Children opened in Minneapolis with Dr. Jay Arthur Myers as its volunteer medical director. At Lymanhurst, Myers found that children with a primary tubercular infection were usually not ill and might grow to healthy adulthood,

personal benefit, as well, to the uplifting of the medical man as he works for the benefit of mankind. Thus the medical profession will be brought to the position where it should stand as the great protector of the human race from disease, prolonging human lives and alleviating human suffering. …

Let us hope that the medical men who go forth to war to care for the sick and wounded, and who have been at such a great disadvantage while away at war developing a peaceable world and a world fit to live in, will have every advantage when they return to civil life again. …

We must remember that the military medical altruism must be carried beyond the point of selfishness, and we must be generous to each other, for it is a wonderful thing to be saving lives, and the army doctor fills probably the most important position, for if it is possible for one life to be more precious than another, then the life of our American soldiers should be sacredly supreme.

Presented at the Minnesota State Medical Association Annual Meeting in Duluth, August 28-30, 1918. Published in Minnesota Medicine, *October 1918.*

ORIGINAL ARTICLE

CHANGES AHEAD

M. L. BURTON
PRESIDENT OF THE UNIVERSITY OF MINNESOTA, MINNEAPOLIS, MINN.

I believe that you and I are living in the most stupendous moment of all history. ... We are in the midst of forces which we neither understand nor can comprehend. The whole world is in a state of flux, and no previous generation of men and women has ever faced the problems that you and I must face in the decade just ahead. ...

When we speak of changes that are ahead, the most serious question which you and I must meet is, can the democratic American government be made efficient? That is the question that has been raised about democratic government from the days of Plato to the present. You and I know that it is a little difficult for us at times to assert, without any qualifications, that democracy can be made efficient. ... I am not going to weary you with any long portrayal of the shortcomings and limitations and failures of American government. When one thinks of the scandal of American politics, of the corruption, the bribery, the intrigue, and

Elliot Memorial Hospital (center) on the University of Minnesota campus was expanded in 1925 with the addition of the Christian and Todd wings (on the left). Photo courtesy of U of M Archives.

although their health must be watched carefully. Like Slater, Myers concluded that a child infected with tubercle bacilli, as indicated by a positive tuberculin test, must have come in contact with an active case of tuberculosis, usually in an adult. The source of infection was often an elderly grandparent whose chronic cough arose from unrecognized tuberculosis.

The long, sustained decline of tuberculosis in Minnesota after 1918 resulted from the isolation and treatment of tuberculosis patients in sanatoria, supported by a systematic search for unrecognized cases among patients' families and through tuberculosis surveys. The aim of the tuberculosis survey was to give every person in the community a tuberculin test, followed by chest x-rays for all who tested positive. In practice, such surveys were often confined to schoolchildren, but the tuberculin testing of children provided a very accurate guide to the amount and location of tuberculosis in a community.

The expansion of hospitals and clinics, 1920-1930

Since its first opening in 1883, Saint Marys Hospital in Rochester had undergone successive expansions to accommodate the steadily growing stream of patients drawn to the Mayo Clinic. By 1914 it was a 300-bed hospital with six operating rooms. Famous for its accuracy of diagnosis and success in treatment, the Mayo Clinic was then primarily a surgical clinic, and surgical patients occupied almost all the beds in Saint Marys Hospital. From 1900 to 1920 the clinic grew rapidly with the addition of new surgical specialties, but at the end of World War I, the Mayo brothers and their partners decided that for continued growth they must transform their surgical clinic into a comprehensive medical center. Toward that end, they needed many more hospital beds. In 1918 Saint Marys Hospital established a small isolation hospital and in 1921 a larger convalescent hospital, both of which freed beds in the main hospital for additional surgical patients. Saint Marys opened a new surgical pavilion in 1922 that increased its overall capacity to more than 800 beds. By 1925 other hospitals and a hospital-hotel brought total hospital capacity in Rochester to some 1,500 beds.

In 1920 Drs. Leonard G. Rowntree and Reginald Fitz joined the staff of the Mayo Clinic to develop specialties in metabolism and endocrine diseases. Other specialists in various branches of medicine quickly followed. Dr. Henry F. Helmholtz took over the section on children's diseases in 1921. By 1924 the medical side of the Mayo Clinic was caring for more than 7,500 patients annually.

By 1925 the various divisions of the Mayo Clinic, its diagnostic services, laboratories, and records had far outgrown the clinic building

The Duluth Clinic, 1927, top. The Plummer Building, right. Photos courtesy of The Duluth Clinic and Mayo Foundation.

opened in 1912. Dr. Henry Plummer began planning a new 16-story building, which was completed in 1929 and later named the Plummer Building. Carefully planned and elaborately wrought in all its details, with richly ornamented colored marbles and bronze, the Plummer Building has been termed a "cathedral of medicine." It provided facilities for the most modern diagnostic methods and storage for the records of many thousands of patients—records instantly retrievable when needed.

In Minneapolis, the small Elliot Memorial Hospital on the University of Minnesota Campus was expanded in 1925 by the addition of the Christian and Todd wings. In 1929 the Eustis Hospital for children, a new outpatient department, and a student health service were added. By 1930 the University of Minnesota Hospitals had 400 beds and were for the first time large enough to support a full-time clinical faculty. With Owen H. Wangensteen in surgery, Hilding Berglund in medicine (soon to be followed by Cecil J. Watson), Irvine McQuarrie in pediatrics, and Leo J. Rigler in radiology, the university hospitals soon became famous as a center of clinical investigation. Meanwhile, both the General Hospital in Minneapolis and the City and County Hospital in St. Paul were enlarged, and in 1921 a group of physicians, following the Mayo example, founded the Nicollet Clinic in Minneapolis. In Duluth, several physicians led by Edward L. Tuohy founded The Duluth Clinic for group practice.

The building of new hospitals and expansion of old hospitals during the 1920s and 1930s were accompanied by a rapid elaboration of new methods of diagnosis and treatment. Every hospital acquired x-ray equipment and began to use it more frequently and more effectively. Radiology emerged as an important diagnostic specialty. Both the Mayo Clinic and the University of Minnesota acquired stocks of radium for the radiation treatment of malignancy. At the Mayo Clinic, where so many patients came for goitre surgery, Henry Plummer introduced iodine treatment before surgery for exophthalmic goitre, a step that saved many lives. In Minneapolis, George Fahr recognized myxedema heart and treated it effectively with thyroxin, while Jennings Litzenberg began to use thyroxin for the effective treatment of infertility in women. Owen Wangensteen transformed the diagnosis of intestinal obstruction and introduced gastrointestinal suction, a procedure that was to save thousands of lives and reduce the pain of all patients undergoing abdominal surgery.

The Second Quarter Century, 1942-1966

With the bombing of Pearl Harbor on December 7, 1941, the United States was plunged into World War II. In 1940 the University of

the duplicity, then it is not possible for him to consider with great composure some of the things that are said by the keen, discriminating persons who try to find out whether we are wise, economical, and efficient in the administration of our affairs. ...

American people are absolutely determined that this American democracy shall be made efficient. The significant thing about any individual or group or organization is not what it is, but what it is becoming; not so much what it may have been in the past as what it is going to be in the future, for after all one of the fundamental tenets of my thought is this, that only exists which ought to be. You and I know that American government is not what the carping critic says it is, but we know that it is what you and I dream in our best moments it shall be when we have brought to pass the things for which we are striving, that is what American government really is. It is just what you and I determine it shall be. ...

Address delivered without notes before the Southern Minnesota Medical Association, Winona, June 24, 1918. Published in Minnesota Medicine, *September 1918.*

ORIGINAL ARTICLE

SOME POPULAR FALLACIES REGARDING PEDIATRICS

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To say that the child is the most important element in the future of the state is axiomatic. There never was a time when this fact was so apparent as now, and yet there is no department in the whole field of medicine which is so neglected by the medical profession generally as that of pediatrics.

Up to a few years ago there was little exact knowledge concerning the fundamental principles underlying the field of pediatrics, but today the care and feeding of infants and children rests upon as solid a scientific foundation as does general surgery.

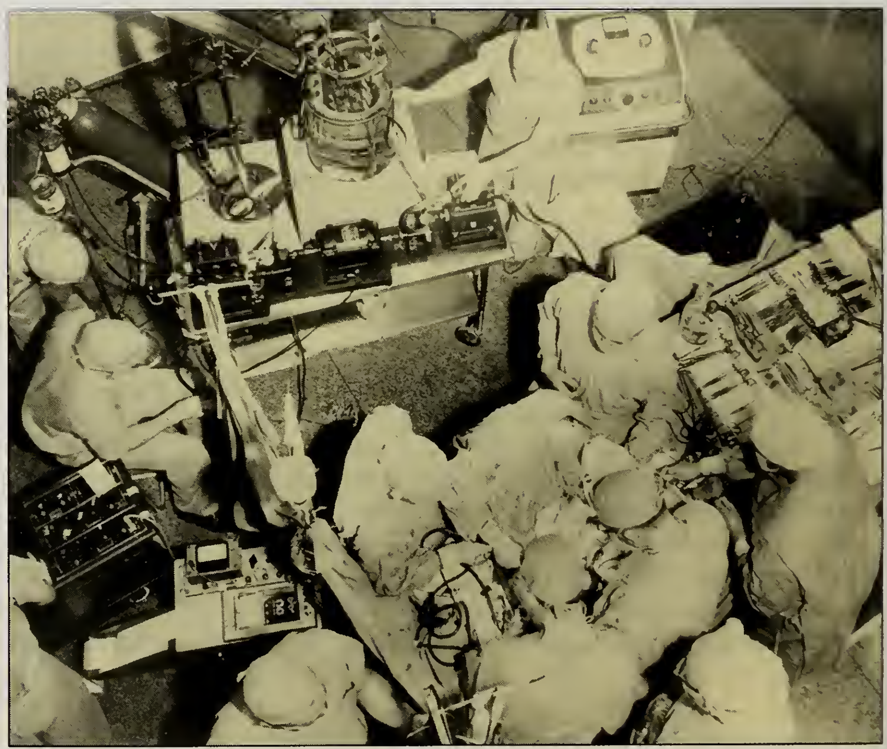
There is perhaps no department of medicine where tradition still plays so prominent a part as in the care of children. The fatalistic and to a great extent false doctrine of "the survival of the fittest" has been slow to be discarded and rational science applied in its place. It is an every-day occurrence to hear statements made by prominent physicians relative to pediatric

Minnesota Medical School had organized a military hospital, the 26th General Hospital, which was mobilized immediately and sent to Fort Sill, Oklahoma, in February 1942. In March 1943 the 26th General Hospital established itself at Djebel Bergh, a windswept hillside near Constantine, Algeria, where during the next six months it cared for thousands of sick and wounded soldiers from the North African campaign, including many wounded German and Italian prisoners of war.

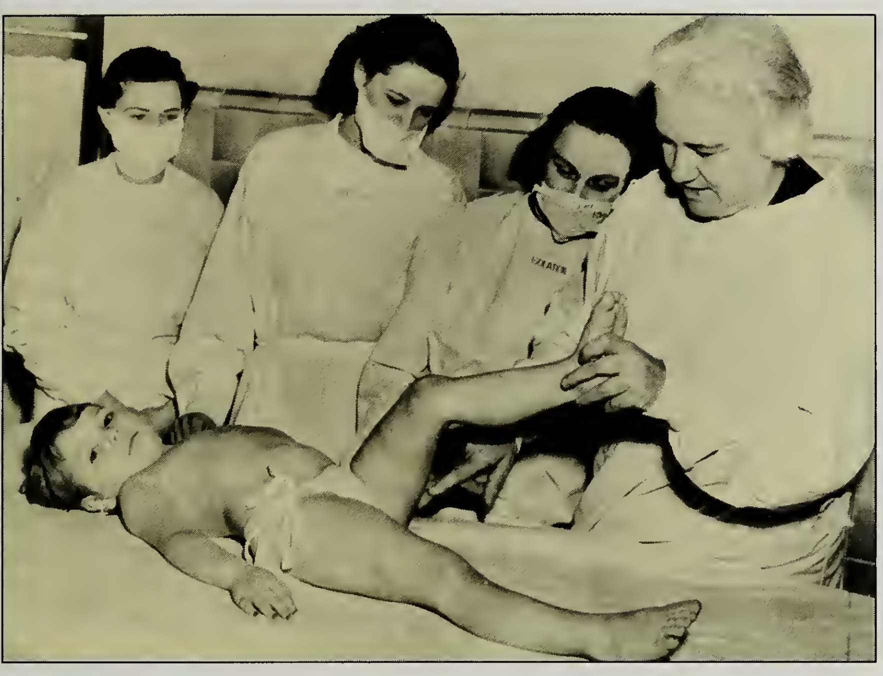
Following the end of the war in North Africa, the 26th General Hospital moved in November 1943 to Bari in southern Italy, where it remained until the end of the war in 1945. During the intense fighting in Italy in 1944, the hospital admitted 16,832 patients and performed more than 4,000 surgical operations with only 45 deaths.

The remarkably low death rate from wounds and surgery in World War II resulted from improvements in blood transfusion, the use of blood plasma, and the introduction of penicillin, first isolated and proven clinically by Howard Florey and his associates at Oxford in 1940. Penicillin brought about a profound revolution in medicine. Although sulfa drugs, the first successful antibiotic drugs, were introduced in 1935, penicillin was far more powerful against staphylococcal and streptococcal infections. It also swiftly cured such previously intractable diseases as gonorrhea and syphilis.

In 1940 at the Mayo Clinic, William H. Feldman and H. Corwin Hinshaw showed that a sulfone compound, Promin, was effective in suppressing experimental tuberculosis in guinea pigs. Unfortunately, Promin proved to be too toxic for clinical use on humans, but Feldman and Hinshaw had succeeded in demonstrating that tuberculosis, resistant to all previous attempts at drug treatment, was in fact susceptible to such treatment if a suitable drug could be found. Penicillin had no effect on tuberculosis, but Feldman and Hinshaw found that an antibiotic, streptomycin, newly isolated by Selman A. Waksman of Rutgers University, was effective in suppressing otherwise fatal tuberculosis in guinea pigs without being seriously toxic. Their early results with streptomycin



Open heart surgery using the De Wall bubble oxygenator. Photo courtesy of U of M Archives.



Sister Kenny demonstrates therapeutic techniques to nurses at the Minneapolis General Hospital, circa 1942. Photo courtesy of the Minnesota Historical Society.

encouraged Merck and Company to produce the drug in quantities sufficient for a clinical trial on human patients. In December 1944 at the Mineral Springs Sanatorium, a county sanatorium in Cannon Falls, Minnesota, Dr. Hinshaw and the sanatorium director, Dr. Carl H. Pfuetze, began to study the effect of streptomycin on tuberculosis in human patients. By January 1946 they reported that streptomycin was able to change the course of previously progressive cases of tuberculosis. It did not kill the tubercle bacilli, but it stopped their growth and allowed the human body's natural healing process to gain the upper hand. Streptomycin provided the first practical and effective chemotherapeutic treatment for tuberculosis.

With the arrival of summer each year during the 1930s and 1940s, the newspapers grimly announced the first cases of poliomyelitis, a disease that especially attacked children, but also adults, causing many deaths and leaving those who survived with more or less extensive permanent paralysis. In May 1940 an Australian nurse, Elizabeth Kenny, arrived in Minneapolis and called upon Harold Diehl, dean of the University of Minnesota Medical School, to tell him that she possessed a method of treating poliomyelitis patients far superior to the methods then in use in the United States. American physicians were accustomed to place the limbs of polio victims in plaster casts to prevent their distortion by unequal contractions of the muscles. In Australia, Sister Kenny had found that painful muscle contractions occurring at the acute stage of polio could be relieved with hot moist compresses and that distortion could be avoided by passive movements of the limbs. She found that after the disease subsided, the patient could recover use of the paralyzed limb through graduated training exercises. Dean Diehl introduced Sister Kenny to Dr. Wallace Cole, professor of orthopedic surgery, who arranged for her to demonstrate her methods at various hospitals in St. Paul. Sister Kenny's success in dealing with deformities resulting from poliomyelitis was so striking that Cole obtained a grant from the National Foundation for Infantile Paralysis to enable her to remain in Minneapolis, and in 1942 the city of Minneapolis converted the Lymanhurst Health Center, previously used for the care of children with tuberculosis and

subjects, which in the field of surgery would be comparable to a return to the carbolic spray of Lister. ...

Much of the work now being done by pediatrists should be done by the general practitioner. There is no department of medicine which will pay such high dividends in results to the patient and the community, nor one which will cover the physician with more glory in the knowledge of real achievement, than the careful, scientific study of the children in his practice.

Published in Minnesota Medicine, *January 1918.*

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OF GENERAL INTEREST

REPORTING OF ACCIDENTS FROM LOCAL ANESTHETICS

Elsewhere in these columns appears a letter from the Therapeutic Research Committee of the Council on Pharmacy and Chemistry of the American Medical Association asking the cooperation of the medial and dental professions in obtaining reports on accidents by local anesthetics.

It is self-evident that the prevention and treatment of such accidents must be based on full and conscientious reports of all abnormalities. It is notorious that the reports of such accidents are published only exceptionally, for fear of unmerited censure of the anesthetist. The committee feels that in the plan suggested in its letter this objection has been avoided, so that reports, instead of invited censure, will tend, on the contrary, to serve as a protection. It is hoped that the medical and dental professions will give this important measure their fullest co-operation.

Published in Minnesota Medicine, *February 1918.*

rheumatic fever, into an institute for poliomyelitis patients and renamed the center the Kenny Institute in her honor. During the next few years, the Kenny methods were adopted throughout the United States with great benefit to the rehabilitation of poliomyelitis victims.

At the Mayo Clinic in September 1948, Philip Hench, who for a quarter century had been studying rheumatoid arthritis, obtained several grams of compound E, an adrenal cortical hormone that had just been synthesized by his colleague Edward C. Kendall at the Mayo Clinic. Although another adrenal cortical hormone, desoxycorticosterone, was known to influence mineral metabolism, clinical applications for adrenal cortical hormones had not yet been identified. Nevertheless, the secretions of the adrenal cortex were essential to life; Addison's disease, resulting from adrenal cortical insufficiency, was a well-recognized, usually fatal condition. In April 1949 Hench and his colleagues announced that Compound E (which Hench shortly thereafter renamed cortisone) brought about dramatic improvement in patients with rheumatoid arthritis. In 1950 Hench shared with Kendall and the Swiss biochemist Tadeus Reichstein the Nobel Prize in medicine for the isolation of the adrenal cortical hormones and the identification of their chemical structure and biological effects.

During the 1940s Minnesota surgeons began to perform the new operation to correct patent ductus arteriosus, pioneered in 1938 by Robert Gross at Boston. At first they did so with some hesitancy. Many children with patent ductus arteriosus grew to adulthood, apparently little inconvenienced by the defect in their heart. Nevertheless, at the University of Minnesota in 1943, Morse Shapiro and Ancel Keys found that while patients with patent ductus arteriosus suffered little disability during their lives, they did not live very long, most of them succumbing to bacterial endocarditis or congestive heart failure before the age of 35. Surgeons then began to operate to close the ductus, confident that the operation was essential to prolong the lives of such patients.

Drs. Edward Kendall and Philip Hench in the laboratory, 1949. Photo courtesy of Mayo Foundation.

In 1944, when Dr. Alfred Blalock of Johns Hopkins University operated to ease the condition of children born with tetralogy of Fallot—the so-called "blue-babies"—by connecting the left subclavian artery to the pulmonary artery, he dramatically expanded the scope of heart surgery. Surgeons became eager to make more fundamental corrections of congenital defects in the interior of the heart, but could not, because the heart had constantly to keep pumping oxygenated blood to the brain and other organs. At Jefferson Medical College in Philadelphia, Dr. John Gibbon attempted to build an artificial heart-lung machine to pump and oxygenate the blood, and by 1947 he had a machine able to support heart-lung bypass in dogs. At the University of Minnesota, Dr. Clarence Dennis also built a heart-lung machine, which he used on April 5, 1951, to provide heart-lung bypass during an open heart operation on a 6-year-old girl to correct a defect in the interatrial septum. The patient, who before the operation was suffering from pulmonary edema and heart failure, did not survive. In Philadelphia, John Gibbon encountered similar failures in his attempts to operate on human patients using his heart-lung machine. A high proportion of unexplained deaths occurred even among dogs that were maintained for no more than 20 minutes on the heart-lung machine.

In 1950 in Toronto, Dr. W. G. Bigelow experimented with lowering dogs' body temperatures to increase the time that blood circulation might be suspended for surgery on the interior of the heart without damaging the brain. At the University of Minnesota on September 2, 1952, Drs. John Lewis, Richard Varco, and Mansur Taufic used hypothermia during surgery to repair an atrial septal defect in a 5-year-old girl—the first successful operation on the interior of an open heart under direct vision. By February 1954 Dr. Lewis and his colleagues had performed open heart surgery to correct atrial septal defects in 11 patients, with two deaths.

Richard De Wall with his invention, the Model III Bubble Oxygenator. Photo courtesy of U of M Archives.

While hypothermia permitted rapid operations on atrial defects, it did not provide sufficient time for operations to correct defects within the ventricles of the heart. At the University of Minnesota during 1953, Dr. C. Walton Lillehei pursued a different approach, using the discovery that the small flow of blood through the azygous vein was sufficient to prevent damage to the brain and other organs during heart bypass. After first using a single lobe of the lung as a blood oxygenator in experimental dogs, Lillehei and his colleagues turned to cross-circulation experiments in which a donor animal provided oxygenated blood to a recipient, while the latter was subjected to complete heart bypass. In contrast to Gibbon's and Dennis's earlier experiences with heart-lung machines, Lillehei and his colleagues found that very few of the dogs subjected to cross-circulation died. By March 1954 they were sufficiently confident of the cross-circulation technique to begin operations on human patients. The first operation, on a 1-year-old boy, was successful, but the child died from bronchitis and pneumonia 11 days later. The second patient, a 4-year-old boy, also developed pneumonia after operation but recovered to go home and grow into a healthy adult. By September 1954 Lillehei and his colleagues had performed eight open heart operations to correct ventricular septal defects, including one to correct tetralogy of Fallot, with only two deaths—a remarkably successful record in view of the seriousness of the defects and the poor condition of the patients at the time of operation.

Meanwhile, another of Lillehei's colleagues, Dr. Richard De Wall, was developing a new type of artificial blood oxygenator in which oxygen was bubbled upward through a column of blood and the bubbles removed by having the blood flow down a coiled plastic tube. Lillehei began using the De Wall oxygenator on human patients in May 1955. Two years later, more than 350 patients had undergone open heart surgery at the University of Minnesota Hospital using the new oxygenator. The introduction of the bubble oxygenator permitted cardiac surgery to be performed at any well-equipped hospital with surgeons trained in its techniques. Most such surgeons were trained at the University of Minnesota.

When some patients began to suffer heart block after cardiac surgery, Lillehei sustained their heart beat with an electric pacemaker, a large machine connected to the electric power source in the hospital. To overcome the limitations and dangers of such machines, in 1958 Lillehei

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EDITORIAL

WAR AND MINNESOTA'S TUBERCULOSIS

The war measure, second to none in its importance, directed against the great white plague has been conceived, and is now operating for the relief of returned soldiers suffering from tuberculosis.

By means of an arrangement combining the resources of the American Red Cross, the Advisory Commission of the Minnesota Sanatorium for Consumptives, and the Minnesota Public Health Association, proper care and treatment will be supplied every Minnesota soldier suffering from tuberculosis.

This co-operative effort will prohibit a repetition in Minnesota of the misfortunes experienced in other states by soldiers who have in some instances been left to die in poor-houses or alm-houses for lack of proper provisions for their care. ...

Published in Minnesota Medicine, *July 1918.*

OF GENERAL INTEREST

The Children's Bureau of the U.S. Department of Labor at Washington very rightly asks, why should the United States, especially the newer rural states, be satisfied with a less favorable infant mortality rate than that which New Zealand can show? The New Zealand rate has steadily gone down, notwithstanding the war, and is now almost precisely half the rate for the registration area of the United States; that is, in New Zealand one baby in twenty dies, while in the United States one baby in ten dies. The most favorable state rate in the registration area is 70, that of Minnesota. Why should Minnesota not enter the race with New Zealand? ...

Published in Minnesota Medicine, *March 1918.*

EDITORIAL

OSTEOPATHS AND MORPHINE

The question has been brought to our attention whether or not osteopaths are permitted to prescribe or administer morphine under the laws of the State of Minnesota. The question as to the

asked an electrical engineer, Earl Bakken, whether he could develop a portable battery-powered pacemaker. Within a few weeks, Bakken produced a small battery-powered unit that the patient could carry in a holster. Bakken and his partner, Palmer Hermundslie, then incorporated under the name Medtronic, Inc., to manufacture portable pacemakers. The new machine was improved by the introduction of a bipolar electrode, developed by Dr. Samuel Hunter at St. Joseph's Hospital in St. Paul in collaboration with Norman A. Roth, chief engineer for Medtronic, Inc. In 1960, Medtronic began to manufacture an implantable pacemaker, developed at Buffalo, New York, by an engineer, Wilson Greatbatch, and a surgeon, William Chardack. They used the bipolar electrode with the new pacemaker.

Owen Wangensteen, 1945. Photo Courtesy of U of M Archives.

Open heart surgery techniques also permitted surgical treatment of defective heart valves. In 1958, Dr. Lillehei and his colleagues described successful operations to repair damaged mitral and aortic valves. In the 1960s they began to replace diseased aortic valves with artificial valves, which proved highly successful and have since been placed in hundreds of thousands of patients.

The extraordinary success of surgeons at the University of Minnesota in the development of open heart surgery was founded upon the thoroughness with which each new procedure was studied experimentally in dogs and examined in all its physiological relationships before being tried on human patients. Inspired and impelled by the chief of the Department of Surgery, Owen H. Wangensteen, it was an approach to surgery that combined imagination in research with caution in its application to patients.

The Third Quarter Century, 1967-1992

With the discovery in 1961 of the ability of azathioprine (Imuran) to prevent rejection of transplanted organs, kidney transplantation emerged as a new and promising treatment for patients suffering from end-stage kidney disease. By 1967 the transplantation surgery itself had become quite safe, but many patients died after transplantation from infections to which they were very susceptible as a result of suppression of their immune systems. When Dr. John S. Najarian came to the University of Minnesota as chief of surgery in 1967, he began to eliminate infections before transplantation and succeeded in reducing mortality significantly.

Many patients suffering from kidney disease were also diabetic, but in the early years diabetics were considered poor risks for kidney transplantation. In an effort to help such patients, Dr. Richard Lillehei began transplanting the pancreas as well as the kidney in 1966 at the University of Minnesota Hospital. Unfortunately, by 1970 no patient had survived the double transplantation for more than 11 months, and Najarian placed a moratorium on such operations until 1977. Between 1978 and 1983, Dr. David Sutherland and his colleagues performed 75 pancreas transplants, using a segmental technique that proved highly successful.

When the autoimmune origin of juvenile-onset diabetes became understood, Najarian and his colleagues started performing kidney transplantation alone in diabetics. The immune suppression used to prevent rejection of the transplanted kidney also stopped the progression of their diabetes and often resulted in great improvement.

Organ transplantation programs have also been developed at other centers. For example, Dr. Claude Hitchcock has carried on a particularly active kidney transplantation program at Hennepin County Medical Center in Minneapolis.

Although the first human heart transplant in 1967 was followed by a flurry of heart transplantations at many medical centers, the results were so discouraging that they were discontinued in the early 1970s. Heart transplantation was resumed in the mid-1980s as a result of further research on heart transplantation carried out primarily by Dr. Norman Shumway at the Stanford University Medical Center. In Minnesota heart transplantations began to be performed in Minneapolis at Abbott Northwestern Hospital and the University of Minnesota Hospital.

During the 1980s at the University of Minnesota Hospital, surgeons began to perform liver transplants on young children with biliary atresia, who, without a liver transplant, would have no chance of living to adulthood. Of much broader application are bone marrow transplants for patients suffering from leukemia and other forms of cancer, pioneered at the University of Minnesota Hospital in 1968.

As with transplantation, a multitude of new technologies have transformed almost every aspect of medicine over the past quarter century. Computer assisted tomography and magnetic resonance imaging have become indispensable to diagnosis. Laser beams have proven invaluable in ophthalmic surgery, and similar examples might be cited from many specialties. Yet the growing power and technical sophistication of diagnostic and therapeutic techniques have not created universal satisfaction. The cost of medical care has risen so rapidly as to threaten to exceed not only the ability of individuals, but of American society as a whole, to pay for it. A growing number of people do not have health insurance and cannot obtain it. For patients without health insurance, the triumphant glories of modern medicine do not exist; they can hardly obtain the most basic medical care. Few doctors will see them.

A further dilemma is that the control of infectious diseases over the past 75 years has bred a complacent ignorance of their dangers. A growing number of children have not been immunized to diphtheria or pertussis. A still larger number lack immunization for measles. After 60 years of steady decline, the incidence of tuberculosis is rising; the current control measures are proving inadequate to prevent its spread. Exclusive reliance upon the treatment of tuberculosis by drugs has bred drug-resistant strains of the tubercle bacillus. The AIDS epidemic demonstrates that society is as yet unprepared to take the measures required to control a deadly infectious disease for which there is no cure. The price exacted has been thousands of lives and may become countless more.

Nevertheless, the problems confronting medicine today are almost trivial when compared with those of 75 years ago. The knowledge to control most infectious diseases exists; it needs only to be applied. In some instances we may need to return to medical and public health measures prematurely abandoned several decades ago when they seemed no longer required. The solution to other disease problems will require further research, but the many successes gained through medical research in the past offer hope that even the most intractable diseases may be brought under control in the future. **MM**

Leonard G. Wilson is professor of the history of medicine at the University of Minnesota and head of the History of Medicine Department. He has written extensively on the history of medicine and science and is author of the book, "Medical Revolution in Minnesota: A History of the University of Minnesota Medical School," published by Midewiwin Press, St. Paul, 1989.

legality of such has been submitted to the Attorney General of this state. His reply is final and needs little comment. It is as follows: "An osteopath cannot prescribe morphine or administer the same hypodermically or otherwise under the laws of our state. Chapter 260, Laws of 1915, designates who may prescribe or administer morphine in this state, and an osteopath is not among those so designated. The fact that an osteopath may have a permit from the federal government to administer narcotics, does not give such osteopath the right to administer the same in this state in violation of the statutory law thereof."

Therefore, although osteopaths are permitted under the law of Minnesota to prescribe drugs for external use and to perform minor surgery, and are allowed to register under the Harrison Narcotic Law, they are not allowed under the Minnesota laws either to prescribe or to administer morphine in this state.

Published in Minnesota Medicine,
May 1918.

1918
75
years
1993

The Evolution of Medicine as a Profession

A 75-Year Perspective

Frederic Hafferty, Ph.D., and J. C. Salloway, Ph.D.

ORIGINAL ARTICLE

RESPONSIBILITIES OF THE MEDICAL PRACTITIONER TO THE STATE, PROFESSION, AND PATIENT, AS RELATED TO MALPRACTICE

AARON F. SCHMITT, M.D.
MANKATO, MINN.

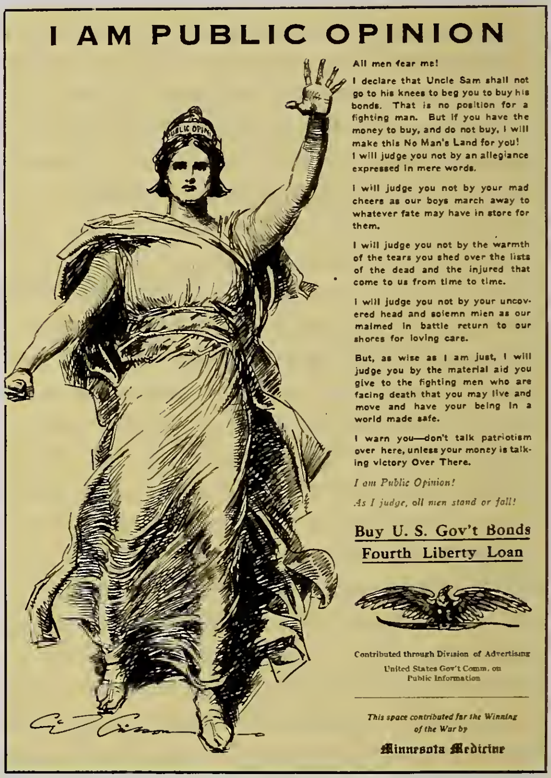
Of the Professions, the Profession of Medicine and Surgery is the most noble and self-sacrificing. The duties and services of this profession are arduous and continually demand the exercise of the moral, mental and physical energies in the most careful, kind, diligent and faithful manner regardless of the social or economic status of the patient. The responsibilities and obligations are enormous, not to the practitioner alone, but also to the patient, the profession and the state. ...

The physician is held to the strictest accountability for sins of omission and commission and even his purposes and motives are willfully misinterpreted to meet successfully the felonious designs and purposes of the charlatan. If the physician's most delicate and difficult task is not performed to the entire satisfaction of the patient and his family but also to the entire neighborhood, he may very promptly be subject to

The medical profession has become a very different social institution since the Minnesota Medical Association first began publishing *Minnesota Medicine* in 1918. Early articles in the journal characterized the profession as a noble, arduous, and self-sacrificing entity, both ready and willing to assume "enormous" responsibilities and obligations.[1] Similarly, physicians were cast as possessing unsurpassed moral, mental, and physical energies, all of which were directed toward the service of their patients with great diligence, faithfulness, and kindness.

Today, a different tenor and tone swirls about the profession. The physician has emerged as a technocrat, and organized medicine a chief societal villain. Physicians feel strangled by new laws, regulations, and court decisions, which they feel are aimed at controlling their profession. "In the 1930s [physicians] were priests on a high throne whose views were unchallenged. Those days are gone. It's an era of public inspection, and more and more questions are being raised," said a University of Minnesota professor just last month in *Minnesota Medicine*'s cover story on physicians' public image.[2]

How has medicine's status as a profession evolved during the 75-year tenure of *Minnesota Medicine*? To answer this question, we need less to chronicle a well-known history than to plot the evolution of medicine *as a profession* and to explore the major transitions that have occurred in medicine as an organizational entity during this time period. To this end, we explore the evolution of medicine as it involves changes in four vital relationships: 1) the profession of medicine to society, 2) physicians to other organizations in their environment, 3) physicians to each other, and 4) individual practitioners to their patients.



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All men fear me!

I declare that Uncle Sam shall not go to his knees to beg you to buy his bonds. That is no position for a fighting man. But if you have the money to buy, and do not buy, I will make this No Man's Land for you!
I will judge you not by an allegiance expressed in mere words.

I will judge you not by your mad cheers as our boys march away to whatever fate may have in store for them.

I will judge you not by the warmth of the tears you shed over the lists of the dead and the injured that come to us from time to time.

I will judge you not by your uncovered head and solemn mien as our maimed in battle return to our shores for loving care.

But, as wise as I am just, I will judge you by the material aid you give to the fighting men who are facing death that you may live and move and have your being in a world made safe.

I warn you—don't talk patriotism over here, unless your money is talking victory Over There.

I am Public Opinion!

As I judge, all men stand or fall!

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Minnesota Medicine

Medicine and Society

Professions are special types of occupations, and medicine is the exemplar of professions. The concept of profession connotes a number of organizational characteristics, such as control over the recruitment and training of new members. A profession is characterized by control over the substance and evaluation of its own work (autonomy), control over the work of others in closely related occupations (dominance), and dominion over particular matters—health and illness in physicians' case (sovereignty). Professions are also marked by a highly moral calling and the extraordinary trustworthiness of their members.

Medicine's relationship to society may include three distinct phases: ascension, maintenance, and decline.[3] In turn, medicine's status as a profession is dependent on the nature of its relationship with the general public and with the state. Over the past 75 years, the basic trend in these relationships has been toward an increase in medicine's professional powers and prerogatives. Today, however, no one claims that the profession is ascending. Rather, the debate is whether medicine is undergoing a decline in its professional powers or is engaged in the active and vigorous maintenance of those powers.

Medicine's special privileges

The central principle governing the relationship between the profession of medicine and society is that professional powers and prerogatives must be granted by society. Such prerogatives cannot be simply assumed by a profession but must be negotiated, usually with the state acting as a representative of the public's interests. As such, the powers and prerogatives granted to a professional group are always subject to modification, recall, or circumcision. Under the most stable circumstances, these legally based protections and privileges are buttressed by a broader cultural authority in which norms, values, and ultimately tradition come to dictate that a certain professional group warrants unusual deference and special treatment so that it can carry out its work in the manner it considers best.

The history of medicine in this country is in part a history of medicine's quest for cultural authority along with compatible legal protections involving such processes as licensing and medical practice acts.[4] To support these legal entitlements and protections, organized medicine has traditionally argued that it alone (versus various antagonists, such as the homeopaths, Thomsonians, and chiropractors) possesses an esoteric, scientific body of knowledge, that as a consequence only medical work should be sanctioned by the state (and by other institutions such as insurance companies), and that its work can only be judged by others in the profession. Thus, the medical profession argued that the effective practice of medicine required an exclusive power within the domain of healing and the right to police itself.

Medicine's attainment of these prerogatives represents a remarkable delegation of power to a single group. In return for this power, and because of the potential for insiders to abuse its esoteric knowledge base, medicine promised to exercise its knowledge and skills for the betterment of the community. In the earliest stages of professional development, medicine promised to forgo its own self-interest and to operate in the patient's best interest (a simple form of paternalism). More completely, it promised to place the welfare of the patient above its own[5] and to serve as the legitimate agent of society before the police, the courts, business, and other formal organizations that required objective assessment of illness. In these ways, medicine sought to justify its claims to serve both patients and community and, thus, to legitimate its request for

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or assistantship with a future, in the Twin Cities, by a man 35 years old, with four years hospital, and six years successful general practice; Protestant; a good Mixer and a hard worker; will consider an ethical proposition only; available immediately. State full particulars. Address No. 100, care of Minnesota Medicine.

a suit for malpractice. It is almost incredible that the men who above all others live a life of self-sacrifice, ministering to the sick and suffering of their respective communities, who freely give their services to the poor, day and night, rain or shine, sick or well, without money and without price, should be ever held under suspicion and the strictest surveillance, while for the least failure real or imaginary, they are liable to be set upon by the harpies of the law. ...

Laymen ought to be made to understand that a surgeon and physician is mortal and like other men, fallible. The wonder is, when we contemplate the difficult surroundings, that failure does not occur oftener than it does. ...

Read before the Annual Meeting of the Southern Minnesota Medical Association, Mankato, November 26 and 27, 1917. Published in Minnesota Medicine, *July 1918.*

professional autonomy.[6]

In summary, over the course of this century, medicine sought—and acquired—a broad range of special powers and privileges. As medicine vanquished its rivals, "medical care" became synonymous with "health care."

By the mid-1960s, however, the tides had begun to turn. In 1965, with the passage of Medicare and Medicaid, a fundamental restructuring of the relationship of medicine and the state began to evolve.[7] Initially, the impact appeared more positive than negative. Through its lobbying efforts, organized medicine secured, among other concessions, what became known as the "AMA Clause" (Section 1801 of the Medicare Act) entitled "Prohibition Against Interference." This clause prohibited the federal government from exercising "supervision or control over the manner in which medical care services were provided ... or over the administration or operation of any ... institution, agency, or person providing health services."[8]

Organized medicine also fought successfully to retain traditional fee-for-service reimbursement under this new legislation. One outcome was an influx of federal (Medicare) dollars and federal/state (Medicaid) dollars into medicine's coffers. What even then was being referred to as medicine's "golden age"—based on its unparalleled autonomy, power, and prestige—had become, in addition, gilded. Organized medicine had acquired a guaranteed payer who may have imposed endless bureaucracy, but whose pockets appeared bottomless. As a consequence, medicine became one of the major growth industries of the '70s, '80s, and perhaps even the '90s. While a number of economic and social factors affected this picture, the stage had been set for inflation of medical care costs and expenditures, thereby resulting in the initiation of practice controls within public, corporate, and government sectors.

Specialization and its consequences

These broader external changes, while important in shaping medicine's professional future, are not the entire story. Critical alterations were taking place within medicine as well. The profession was evolving structurally as well as attitudinally, with equally important implications for medicine's status as a profession. One such change was the transformation of medicine from what had been a "community of equals"[9] to an occupation marked by increasing internal stratification and differentiation. Medicine's change from a community of generalists to a loosely organized network of specialists is well documented. Less well recognized has been the acceleration of this pattern in recent years, with numerous divisions being created along lines of specialty, work settings, role obligations, intellectual orientations, presence of rival associations, and different and often competing alliances with outside agencies.

Part of this picture can be seen in the escalating trend toward specialization. The first specialty board was created in 1916 in ophthalmology. By 1971 the profession had grown to 22 specialties with their different residency training programs and certification requirements.[10] Over the past 20 years, the rate of specialization has skyrocketed. Today there are 70 subspecialties approved by the American Board of Medical Specialists (not including the 24 primary boards of the ABMS), with more than half of these subspecialty boards being created in the past decade.[11] Thirty-five specialty areas have been approved by the ABMS since 1987. Similarly, almost two-thirds of the 56 different types of accredited residency programs were established during this same five-year period. Of the 99 certificates provided by the ABMS specialty boards, 13 were developed in 1990 or later. One consequence of the growth in accredited

ORIGINAL ARITICLE

THE GENERAL PRACTITIONER, FIELD AND HIS FEES

W. J. RICHARDSON, M.D.
FAIRMONT, MINN.

... That the general practitioner is not held in as high esteem as formerly, when the family doctor was a very essential and important factor in his community, consulted not only for his medical acumen, but in regard to many other important matters, I think will be generally admitted.

In fact, it sometimes seems to me, in these later days of enterprising surgery and multiplying specialties, that one almost feels like apologizing to have to admit that he is only a general practitioner, who does not undertake abdominal or other major operations, or dip into the field of the specialist.

For this reason, and for the further one, that those branches are so much more profitable, the general practitioner is naturally tempted to invade these fields, even though the still small voice warns him to keep hands off.

It sometimes seems to me as if the main body of the medical profession had gone operation mad. ...

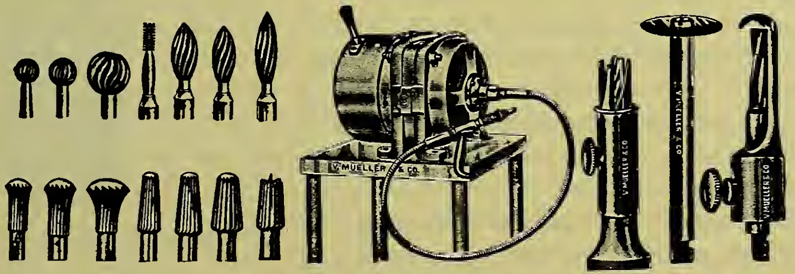
specialties is the moratorium declared by the Accreditation Council for Graduate Medical Education on new specialties or subspecialties until June 1993.

Furthermore, these figures represent only one dimension of a much more complicated picture. They do not include, for example, the number of special interest groups and associations formed by physicians to address the myriad issues facing medicine.

At the same time, a contravening trend has emerged on the national level. As specialty groups grew in numbers, membership, and influence, the number of physicians belonging to the AMA dropped and now hovers around 40 percent of all physicians. Increasingly, physicians have turned to their state, county, specialty, and special interest groups to represent their interests. The AMA, although still recognized as the major spokes-organization for medicine in general, is losing its critical edge. It can no longer claim that it speaks for "a majority" of all clinicians. Moreover, satisfying the general membership has become difficult with the AMA's increasingly heterogeneous constituency divided on such issues as physician reimbursement in general (e.g., contrast the AMA's position on control of physician's fees with that of the American College of Physicians) and on particular strategies for reallocating income among physician specialty groups (e.g., resource-based relative value scales).

One important component of the trend toward increasing stratification has been the growth of an academic and administrative elite within medicine.[12] Medicine has become increasingly rationalized and formalized, moving out of the grasp of rank-and-file physicians and into the hands of elite practitioners and researchers. In turn, there appears to be a growing rift between these new elites and the rank-and-file practitioners and a growing tension between managers and managed, rule setters and rule followers, physicians as owners and physicians as employees, and those who review and evaluate medical work versus those who are reviewed.[13]

A key player in the rise of a new medical elite has been the physician administrator.[14] The appearance of this dually oriented individual in the hallways of medicine raises important questions. Whose interests does such a person represent—the medical profession's or the corporation's? Do physicians who are trained as administrators and who join such organizations as the Association for Physician Administrators or the American Association of Medical Directors or who function primarily as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The treatment of acute diseases, or bedside practice, is of course, the general practitioners' special field. On the whole this practice is about the most satisfactory of all. For in no branch of medicine can more relief or comfort be given than here. Nowhere does the skillful, obliging, and painstaking physician gain the good will and gratefulness of his patient as here. ...

It will not be denied, I think, that as compared with the specialties, and surgery in particular, the pay of the general practitioner, for services rendered, is ridiculously small. When one stops to think that the yearly income of the average practitioner amounts to no more than specialists, and surgeons in particular, frequently make in a week or two, it must be admitted that something is wrong somewhere. ...

When one thinks of the hard life of the general practitioner, and the country doctor in particular, the wonder is that so many enter the profession. ...

Presented before the Southern Minnesota Medical Association, Mankato, November 27, 1917. Published in Minnesota Medicine, *March 1918.*

Of General Interest

An Acknowledgment

We desire to extend our deep appreciation and thanks to the Pennsylvania Medical Journal for the following:

"The first number of *Minnesota Medicine* made its appearance in January, with the Minnesota State Medical Association, owner and publisher. The size of the printed page is the same as our journal and the editorial and mechanical work is in every way worthy of the medical profession of Minnesota. This is the twenty-eighth state medical journal that follows the plan of admitting to its advertising pages only such articles as comply with the rules of the Council on Pharmacy and Chemistry of the American Medical Association. It is difficult to harmonize the double standard adopted by some medical journals published on a purely business basis where the editorial management and the advertising department are supposed to be independent one from the other. It must be humiliating for some of our medical editors who are recognized as honorable and ethical to reflect on the conflict

administrators in their daily work retain the values, norms, and ideals of their parent culture, or do they adopt the orientation of their new group? Do they continue to approach issues of health care financing from a medical/clinical perspective, or are their values reshaped by their new responsibilities, representing the interests of those who pay their salaries?

Questions of self-interest

As noted above, autonomy is an essential feature in the concept of a profession, particularly as it relates to the profession's ability to be the principal judge of its own work. But autonomy is not without its costs. As part of his ongoing analysis of professions, particularly medicine, Freidson[15,16] raises the specter of a "critical flaw" in professional autonomy. Freidson alleges that autonomy, once achieved, assumes a dynamic of its own that subsequently leads to its own corruption. In analyzing how medicine has historically handled self-policing, he concludes that professional autonomy produces a dysfunctional isolation—even callousness—along with a self-deceiving view of the objectivity and reliability of its knowledge. Isolated from its client base, the profession adopts rationales that evolve into "sanctimonious myths" about medicine's superior qualities and an orientation toward its clientele that is "at best patronizing and at worst contemptuous."[15] He concludes that medicine's "characteristics as a social institution lead it inevitably to have a distorted view of itself, its knowledge, and its mission."[16]

Freidson's analysis, while appearing harsh and antagonistic to medicine as a profession, actually was not an attack on the character of individual practitioners. Indeed, he viewed their motives as basically above reproach. His interest was in the structure of medicine as an organized entity and with the positive and negative consequences of its professional autonomy. Like a long-term guest who had requested and been granted the unrestricted run of the house, medicine by the 1970s had begun to forget the circumstances and conditions of its original invitation and had begun to view as rights what had once been privileges. Consequently, medicine began to view any questions raised about these privileges as unreasonable and hostile intrusions.

Over time, medicine's ability to convince the public that it has maintained a spirit of service has faltered. The perception that medicine has abused its trust and stewardship, whether that be true or imagined, has generated numerous external regulatory activities. In one recent example, the AMA House of Delegates in June 1992 voted to reverse its own six-month-old position and reject the conclusion that it is unethical for physicians to refer patients to facilities in which they have financial interests. Bending to the vehement protests of entrepreneurial delegates and related constituencies, delegates decided that scattered abuses did not merit blanket prohibition. The vote, 216 to 210,

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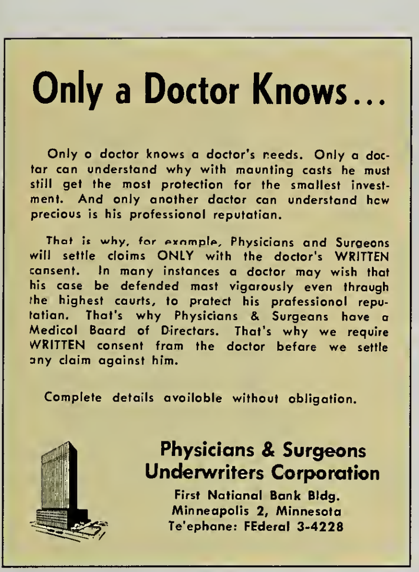

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placed the AMA in conflict with its own Board of Trustees and Council on Ethical and Judicial Affairs, both of which had supported restrictions on physician ownership of diagnostic and referral centers. In what amounted to a substitute move, the House of Delegates recommended, but did not require, that physicians 1) post fees and 2) inform patients of ownership interests as well as the availability of alternative facilities when making "medically necessary referrals" to an off-site facility in which the physician has a financial interest. Such disclosures, the majority ruled, would make these types of referrals ethical. All of this was duly reported in the national press, most of the coverage being quite negative.

A house divided cannot stand. The rendering of medicine as a business stands in direct conflict with medicine's original promise to serve the public based on a model of the physician-patient relationship anchored in trust and served by a fiduciary commitment to place the patient's well-being before self-interest. The privilege of professional autonomy and its baseline promise of a fiduciary responsibility have been called into question. Allegations of insularity and self-deception have been made. If the allegations are true—or even believed to be true—can professional autonomy be saved? Current assessments seem to imply that the answer is "not yet."

It is clear that the current strain between the profession and its public over issues of professional prerogative are not solely the responsibility of medicine itself. Such factors as runaway medical expenses and abuses of trust by other players in the health care delivery system have helped to create the current disaffection with the profession. It is important to remember that modern medicine operates in an organizational environment that is far different from that faced by physicians 75—or even 35—years ago. For good or ill, this organizational environment has contributed significantly to changes in practice and profession.

Physicians and the Organizational Environment

The delivery of health care was once accomplished by a small number of clinicians interacting with a few, limited organizations. Health care delivery now occurs in the midst of a plethora of regulating, financial, government, and professional agencies. The American health care system has become an organizational morass that is seen by physicians as antagonistic to their autonomous practice of medicine.[17] The most remarkable event over the last eight decades has been the transformation in the physician-patient relationship as a result of the proliferation of these new players. The profession has historically purported to be the advocate for the patient confronted by illness. Moreover, this role has been accepted and applauded by the public. Currently, however, these external organizations, which were intended to make health care affordable, accessible, and higher in quality, have done so by limiting physicians' professional autonomy and, thereby, patient advocacy. The role of the physician as patient advocate has been supplanted in part by these formal organizations.

The arrival of management on the medical scene has added to the complexity. Private insurance, Medicaid, and Medicare created a sub-

between the scientific matter and the advertisements in their journals."—Pennsylvania Medical Journal, March 1918.

Published in Minnesota Medicine, *May 1918.*

OF GENERAL INTEREST

MOBILIZATION OF WOMEN PHYSICIANS FOR ANESTHETIC SERVICE

Every effort is being made to keep war surgery at top-notch efficiency and to provide every wounded American doughboy with life saving anesthesia, both at the front and in the hospitals in Blighty.

In this connection the following telegram is self-explanatory:

WASHINGTON, D.C. SEPT. 18.
DR. F. H. MCMECHAN,
AVON LAKE, OHIO

Proceed at once to secure qualified women physician anesthetists, under 45 years of age, of mental poise, as well as young women graduates who are competent for such service.

(SIGNED) DR. FRANKLIN MARTIN (PER)
DR. EMMA WHEAT GILLMORE.
CHAIRMAN WOMAN PHYSICIANS
COMMITTEE. COUNCIL NATIONAL
DEFENSE-MEDICAL SECTION.

Published in Minnesota Medicine, *October 1918.*

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ORIGINAL ARTICLE

PRESIDENT'S ADDRESS BEFORE THE SIOUX VALLEY MEDICAL ASSOCIATION

W. R. BROCK, M.D.,
SHELDON, IOWA.

... I would call your attention specially to the urgent necessity of every physician out of the army service to take increased devotion in the problems of medicine, particularly in medical society work that our societies shall not die but continue to flourish. We shall be slackers indeed if we fail to attend medical societies because of small attendance during this war. War means sacrifice for everyone and we must compensate at home by unusual activities in medical society work, in visiting the great clinics, by painstaking diagnosis and treatment at the bedside, by work in the laboratory and study, so that the physicians who have gone to war may return to find our "house put in order," and learn that we have responded to the timely edict, "work or fight."

Excellent as is the moral standard of the profession of today, we are confronted by needed reforms, chief among which is the reform which will bury for all time the fee-splitting system. Not longer than

stantial cash flow around the patient-practitioner interaction, which in turn attracted the attention of many who could prosper from the industry. With capitalization came management. With management came increasingly complex organization. And with organization came further limitations on professional autonomy.

One of the changes wrought by the growing complexity of health care organizations has been the development of the aggressively managed hospital/medical care organization. There can be little doubt that professional managers have imposed greater restrictions on practitioners and that these new limits have often chafed. However, indications are that the power of administration has been the single best predictor of positive medical outcomes for patients.[18] Aggressively managed hospitals generally have lower mortality and morbidity rates and better patient outcomes generally.

The growth in complexity of single organizations (e.g., clinics or hospitals) as an environment for the practice of medicine is a sufficiently baffling prospect to the physician who wishes only to practice medicine unfettered by bureaucratic excess. However, the single provider organization is itself an endangered species. Today's medicine is often practiced in hospital networks; clusters; consortia; multi-site organizations; and multiply-tiered, hierarchically structured, mixed profit/not-for-profit organizations, which affects individual prerogatives, professional opportunities, and patient outcomes.[19]

Though much can be said about Medicare's positive impact on accessibility to care, much also can be said for the systematic erosion of professional prerogative that followed efforts to control Medicare costs. Length of hospital stay has been limited by DRGs (diagnosis-related groups), therapy has been circumscribed, and in some cases, whole technologies have become less accessible under Medicare prospective payment than under other arrangements.[20]

In summary, the organizational environment for the profession of medicine has gained a degree of complexity and formalization that has severely restricted medicine's ability to practice its craft with the limited internal controls and freedom from external interference that characterized it until mid-century.

Physician-Physician Relations

Historically, practitioners have been linked by practice and by consultation. Where there were no formal business arrangements binding professionals, there were consultation and referral networks that established loose bonds of collegiality.

The link between independent practitioners through clinical consultation and referral has not disappeared, but it has changed. It has typically been a bond that connects solo, fee-for-service providers. Though numbers drop over time and vary markedly by specialty, within the past decade nearly two-thirds of general practitioners report that they are solo practitioners. About half of allergists, dermatologists, and ophthalmologists practice alone. However, the increasingly numerous specialists—the pulmonologists and hematologists, the endocrinologists and nephrologists, the oncologists, rheumatologists, and neurologists—tend to practice in institutional settings.[21] The advent of complex medical institutional settings as work sites has changed clinicians' consultation and referral patterns. Even those who remain in solo practice must, in their patterns of referral and consultation, negotiate the maze of institutional medicine in which specialists operate.

With the advent of the health maintenance organization as a major alternative to fee-for-service practice in the late 1970s and early 1980s,

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yet another form of complex organization altered the nature of physician-physician relationships. HMOs changed the way physicians conduct business with each other as well as their patterns of consultation. In private practice, physicians worked for fees. They might work as solo practitioners, in partnerships, groups, or clinics, but the nature of their practice was essentially a matter of selling services directly to consumers. More complex services were delivered through consultation and referral.

The arrival of the HMO, particularly, the staff model HMO in which physicians are employees of the prepaid provider, created a major market for hired physicians. Although this pattern had been seen earlier in the employment of pathologists, radiologists, and anesthesiologists by hospitals, this new form of health care delivery posed an alternative type of market for physician services.

With employment came a new set of behavioral imperatives that affected many aspects of practice, including consultation. Physicians in prepaid practices consult less than their fee-for-service colleagues and rely more on residents. They engage in less reciprocal consulting. And they tend to avoid fee-for-service practitioners as consulting colleagues.[22] Thus, the changes in the organizational system surrounding practice have constrained and formalized the practitioners' relationships with one another.

Changes in the Physician-Patient Relationship

Historically, the general practitioner was well known in the community, a neighbor and a friend to the family as well as its physician. With the growth of specialization, which created an increasingly complex division of labor in the medical profession, the intimacy of the physician-patient relationship disappeared for most practitioners. It did not, however, disappear for patients. Patients continue to assess the efficacy of medical care based largely on the emotional support they receive from physicians. Emotional support is the architecture of the bridge between a patient's uncertainty about the content and outcome of treatment and his or her evaluation of the treatment itself.[23,24] This feature of the physician-patient relationship implies a dangerous disjuncture between what patients want, need, and expect from their physicians (beyond technical service) and what medicine can possibly offer.

The patient has slowly learned to challenge the authority of the physician. Undoubtedly, this phenomenon is tempered by the identity of

seven weeks ago an ex-editor of one of our state medical journals, a man of fixed integrity and splendid surgical ability, said that he met his professional doom because of the extravagant splitting of fees practiced in his city, a game in which he refused to participate. ...

There are two remedies for this evil: first, the revocation of licenses to practice; second, the general practitioner should so dignify his particular line of work by commanding sufficient pay that he will not have to knock with his patient at the back door of the surgeon asking for a surgical handout. The general practitioner must learn that his services are just as valuable for saving the life of his patient from a severe type of pneumonia, as are the services of the surgeon who saves the life of *his* patient from a severe type of suppurative peritonitis. ...

Presented at the Annual Meeting of the Sioux Valley Medical Association, Sioux Falls, S.D., July 24, 1918. Published in Minnesota Medicine, *October 1918.*

EDITORIAL

THE ANNUAL MEETING OF THE STATE MEDICAL ASSOCIATION

On August 29th and 30th, the Annual Meeting of the Minnesota State Medical Association will be held in Duluth. ...

Never before in the history of medicine has the necessity for scientifically trained physicians been so manifest. The great war has evolved demands upon the resources of scientific medicine which are insistent. To every member of the Minnesota State Medical Association the following propositions must present themselves: Is it practically a duty to attend this particular convention, or should I remain at home? In what way would the interests of my community, locally and at large, be best served? Would I be adequately repaid for the outlay in attending a well conducted and enthusiastic state meeting with the benefits of the social intercourse with my fellows as well as the opportunity to participate in the discussion of scientific and military propositions which present themselves at this time?

To these questions there can be but one answer. The benefits resulting

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the patient, the interactional style of the physician, and the practice environment,[25-27] but the fact is clear: the physician as a high-status, trusted, and intimate friend, is no longer a dominant model of physician-patient interaction.

Naturally, such changes have altered the way physicians view their responsibilities. Feeling oppressed by the burden of rules, regulations, and practice constraints, as well as by their own newly discovered vulnerability, physicians may feel less closely bound to patients and more compromised in their ability to assume their traditional patient advocacy role.

Summary and Conclusions

The profession of medicine has changed dramatically in 75 years. Despite the commitment of individual practitioners to the highest ideals of professionalism, the profession itself has lost privilege, power, and public reputation. It has been toppled from the high moral ground of professionalism. This has happened not so much because individual clinicians have abandoned that ground, but largely because others have occupied it—primarily complex organizations that have developed public mandates to regulate and oversee health care. The issue is not one of unfeeling physicians—it is one of a health care system that has evolved so as to limit medicine's autonomy. This changing system places new constraints and pressures on the physician-patient relationship.

The question we are left with is whether medicine can regain its professionalism. How do we reform a system that, by its complexity, has become amoral?

The only way is for physicians to re-assume a stout position of advocacy—advocacy for individual patients in a complex and frightening system of care, advocacy for patients as a class of people in a political system that seeks to restrict care, advocacy for patients in a world of environmental and epidemic threats. Such advocacy requires an equally strong moral commitment to the principles of service. Acting in the patient's best interest is not enough. It requires that the profession avoid the appearance of blatant self-interest at every turn. It requires a revised commitment to political activism in the interest of service to patients as a community. The costs are extremely high—but the alternative, physicians-as-technicians and medicine as a slave to corporate and government interests, is hardly acceptable. **MM**

Frederic Hafferty is associate professor of behavioral sciences in the School of Medicine at the University of Minnesota–Duluth. His areas of expertise *include health behavior, socialization into medicine, and social processes in the medical profession. He is the author of "Into the Valley: Death and the Socialization of Medical Students" (Yale University Press, 1991).*

Jeffrey Colman Salloway is director of the Center for Health Promotion and Research and associate professor of health management and policy at the University of New Hampshire. He has published in both health behavior and health care delivery systems.

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from a congress of this kind are so far-reaching that, whether considered from the standpoint of duty, policy or personal pleasure, the answer is the same. While our brothers in the service are making such heroic sacrifices it behooves us who are still at home to keep the fires burning and to advance the cause in every way possible. As regards policy, one need only to glance over the list of registrants of former years to be convinced that it is here that the successful (using the term in its broader sense) doctor is met. The stay-at-home is usually the fellow who is "unlucky,"—"Fate has interfered" with his success. ...

The organization of the American medical profession is now of such a nature that it has become one of great influence. The close relation between the county, state and national societies makes for cohesion and brings to the individual physician the opportunity to make his influence felt. Our State Society ranks high, and is one of the leading associations in this country. Let us make it also second to none in enthusiasm and zeal.

Published in Minnesota Medicine, *August 1918.*

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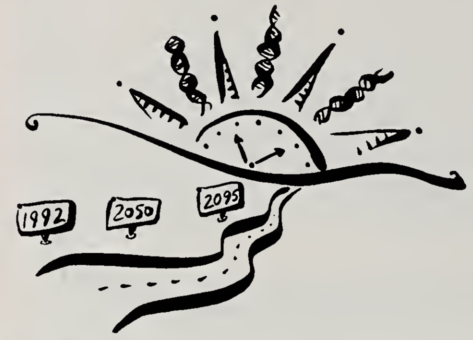
Future Promises Revolutionary Change for Medicine

Earl C. Joseph

Health care breakthroughs are continually accelerating and will produce revolutionary consequences for medicine in the next 75 years—just as they have for the last three-quarters century. With each gain in health care knowledge, the challenge to direct our efforts and money toward beneficial ends becomes more complex and the ethical parameters to consider become more numerous. The future of medicine will bring the elimination of many prominent diseases and conditions, but it will also bring continued escalation in health care costs and debate over how to control spending. The future will also bring changes in the physician-patient relationship, particularly as patients become more knowledgeable purchasers of health care.



ILLUSTRATIONS BY LAURA STANKE

Futurists look at the present to make predictions. Many trends are evident in today's world of medicine, all of which point to changes in the future of health care. Among these are a rapidly advancing knowledge of genetics, a focus on lifestyles, the availability of improved technology, the growth of AIDS and other sexually transmitted diseases, and the revolution in health care knowledge.

History and Current Trends

When *Minnesota Medicine* was first published in 1918, disease organisms were the primary cause of early death and disability in the United States (throughout the world, this is still the case, but in a decreasing number of nations and regions). Prominent diseases early this century included tuberculosis, typhoid fever, pneumonia, whooping cough, and small pox. Infant mortality was also high.

Scientific advances in the medical field and in society (e.g., waste disposal and sanitation systems), have eliminated many of the effects of infectious diseases, and the incidence of these diseases has been greatly reduced in the United States. One by one, the debilitating and deadly childhood diseases of this century have succumbed to breakthroughs in medical science. Now-routine vaccines have relegated rubella, mumps, and measles to the history books—and chicken pox may soon follow—although new problems have replaced them, such as AIDS and an increase in environmental toxins.

Increasingly, it seems, human lifestyle factors have become the primary cause of death and disability. In developed countries, concerns about the outpouring of noxious vapors from automobiles and industry have replaced worries about microbes in drinking water. Tobacco, not tuberculosis, is now the major destroyer of our lungs (although TB seems to be making a comeback). Health has been redefined to include issues that were once considered social problems: drinking, smoking, chemical dependency, violence, automobile accidents, occupational hazards, poverty, and the effects of malnutrition, for example. And because more of the population is living longer, diseases that occur later in life, such as cancer and heart disease, have increased in incidence.

Some 75-Year Forecasts

In the future, as we learn to solve prevailing health problems and as we grasp new opportunities from advances in technology, the primary causes of mortality and disability will again be different. Most likely, we will be coping with diseases of the aged and efforts to vastly extend life and reduce the consequences of certain lifestyles.

Hardly a day passes without some news that could reduce the risk for such diseases as cancer and heart disease. Anticipated breakthroughs and emerging advances in medical technology suggest the following are likely to occur in the medical field over the next 75 years:

- Early mortality from such diseases and impairments as heart disease, stroke, cancer, diabetes, immune system deterioration, and genetic illnesses will be eliminated or greatly reduced.
- Biogenetic advances will eliminate most forms of deafness, blindness, genetic disfigurement, glandular and key organ malfunctions, and chronic pain caused by disease.
- Biotechnological means will become available for limb and key organ regeneration.
- Technological advances will lead to biological intervention and enhancement based on genome mapping, nanotechnology, monoclonal antibody therapy, expert systems, intelligent medical devices and instruments that rely on embedded computers, and the continued development of advanced noninvasive procedures such as improved imaging.

Changing roles for health professionals

The roles of health professionals are in transition. The nature of the physician's role has for decades been moving away from general practice toward the more clinical. Evidence of this transition was already apparent when *Minnesota Medicine*'s first issue was published in 1918 (see excerpts of the original 1918 article, "The General Practitioner, Field and His Fees," on page 28 of this issue). This transition is still in progress, with doctors becoming more specialized as they are trained in the new medical sciences.

Currently, the medical field is under siege; physicians are beset with paperwork, utilization review requirements, and the ever-present demand for the latest technology—at lower costs. Physicians are delivering more cognitive services and fewer procedural services, which are increasingly being performed by nurses and technicians. Machines are becoming more automated, making the medical technician's job easier but also more cognitive. Noninvasive scanners (e.g., CT and PET scanners and nuclear magnetic resonators) and automated operating room and intensive care machines are changing the health care horizon.

One possible result is a future where health technicians, paraprofessionals, and computers ("health care robots") deliver health services, and doctors turn more toward research, working to advance state-of-the-art medical science. Emerging high-tech advances, such as artificial intelligence, could allow and force such a transition.

Artificial intelligence (knowledge-based expert systems), increasingly known as the field of applied intelligence, allows society to amass knowledge of experts, which can then be syndicated to a multitude of others. Imagine a future in which all of society's health care knowledge is available to virtually everyone in a form they can use and understand and that is continually updated as new knowledge is gained. Such systems will first be used by health professionals to aid their clinical decision making. Furthermore, physicians will most likely be mandated by law to do so. But when such technology becomes available to the average person, health care professionals' roles will be radically altered. Will physicians still be needed? Certainly, but not for the same reasons and purposes as today.

In the meantime (before AI systems become available to everyone), computers will greatly reduce health care professionals' paperwork, allowing them more time to deal with patients' health problems. Information technology has recently entered a new era featuring user-friendly systems, personal computer networks, information centers, office automation, and health management systems—and such technology will continue to expand rapidly.

Genetic innovations and nanotechnology

The pressure is on to decode the human genome by the year 2005. New knowledge resulting from mapping and decoding DNA and RNA codes combined with revolutionary advances in techniques for genetic engineering is forecasted to become the prime source for health care advance in the next 75 years.

DNA/RNA intervention technology has vastly augmented the power of medical diagnostics, and the same technology has made somatic gene therapy a reality. Medicine has discovered it can modify defective genes that are replaceable or augmentable with specific nucleotide sequences. As such therapy becomes more widely available, new methods of controlling common illnesses might also be created. One possibility is affixing specific genetic materials to "tame" viruses, which could then be sprayed over large regions to eliminate an oncoming flu outbreak or to combat plant disease.

However, molecular medicine already is creating difficult ethical dilemmas and questions as somatic gene therapy is used more broadly for treatment of inherited disorders, genetic screening, genetic counseling, and radical modification of humans. The ability to correct genetic abnormalities or to enhance (accelerate) human evolution is an awesome new power that will demand societal and political guidance.

In addition, the genetic revolution will lead health care professionals and society to confront questions related to creating humans with new capabilities and physical attributes, altering human psychology and behavior, and altering prenatal life. Prognostic genetic screening of adults, children, and embryos is becoming increasingly routine and prevalent. Gene therapies for correcting congenital disorders, proven in animal models, is poised for application soon in humans. We are already modifying germ lines of livestock and plants; soon such procedures could become commonplace even for humans. The dairy cow is fast becoming a "designed animal." Next on our agenda for the future is applying these successes to humans.

Another health care revolution in the making is nanotechnology, which uses the same DNA/RNA mechanisms as living systems to grow all manner of things—biological, chemical, physical, metallic, etc. In this future, which has already begun, production of things is replaced by the means to grow them—including body parts and new species. Nanotechnology, in the eyes of many researchers and futurists, is the biggest scientific breakthrough in human history.

Molecular biology is a highly technical, enormously complex, multidisciplinary field of science involving and bringing together biologists, geneticists, physicists, physicians, mathematicians, engineers, computer scientists, and politicians and placing new demands on education and research as well as on health care institutions. Soon we will be re-engineering immune systems. It is inevitable that somatic cell gene therapy will be adapted to the treatment of diseases and enhancement of the central

Dear doctor of the future: We're counting on you

Barry W. Uhr, M.D.

Economic forces are changing the delivery of medical care. It will never be the same as we have known it. Those changes started many years ago when a third party assumed the payer role, placing itself between the patient and the physicians.

Those who have known medicine the way it was are going through a grieving process. I do not intend to add to your anxieties. Medicine will survive, but I wish to take you on a brief journey to help us through our grieving.

I am a medical romantic, with dreams of what medicine should be and memories of what it has been, just another in a long line of physicians to whom our profession is special and one who is concerned about the changing image that touches us all.

See if you agree with a physician's letter to the future.

Dear Doctor in Year 2040:

I am writing you this letter in 1992 because I will not be around in your time. I may be one of your guardian angels. Yes, all physicians have them. The lineage of medicine goes back thousands of years, and all ethical physicians are angels on our shoulders.

I am sending you this letter so that you may have a better understanding of your past. Then, perhaps, you will be able to put things into a better perspective. Your system of medical care delivery will be less personal than mine, and that concerns me.

In my early years, we doctors had very personal relationships with our patients. They selected us as individuals, not because we were members of a particular provider group. We enjoyed a trusting relationship. Can you imagine what that relationship meant to us? It was more rewarding than any monetary gain. That relationship is changing even as I write this letter.

The government probably pays you a salary now, and the patient's allegiance is to the payer, not his physician.

In my time, we have seen a change in the public's perception of medicine. Advertising and promotion changed the image of the physician. People became fascinated with technology and began to trust in it more than in the physician. The loss of that trust was difficult for us to accept because of our basic commitment as advocates for our patients.

I suspect you have a much less intense role in taking care of patients than I. Technicians probably deliver most medical care, diminishing your role as a physician. That is the nature of technology. Because you have not been without them, I'll bet you do not even realize that the classic role of a diagnostician has been usurped by technological advances such as computerized diagnostic analysis and treatment programs, robotic imaging scanners, and automated laboratories.

Surgical procedures using computer-directed lasers and the implantation of artificial organs and limbs should be commonplace. Genetic engineering probably has eliminated many physical defects and diseases that I could only ameliorate. Those technologies, born in my lifetime, are scientific wonders.

But where do they leave you as a physician? What is it that you can offer to validate your profession?

Perhaps you have feelings of being a part of something larger than yourself. These feelings emanate from the spirits of gentle giants of medicine coursing through our veins.

They are what we have always been about—the touching of a hand, the gazing into eyes, and the comforting voice of a physician saying, "I dream your dreams; I perceive your pain; I share your mortality; therefore, I understand." Thus, the domain of the physician is not restricted to the physical being as is technology. You are allowed beyond that temporary temple. You have access to the spirit.

As a healer of the body, you have been superbly trained. As caretaker of the spirit, you must preserve a personal relationship with patients. To touch another body with healing hands may be your job, but to instill hope is to continue the heritage of our profession.

We are counting on you.

Barry Uhr is president of the Dallas County Medical Society. This article is taken from his installation address. Excerpted with permission from Dallas Medical Journal, *©1992 Dallas County Medical Society.*

nervous system—the last frontier of molecular genetics. Feats of genetic engineering will spawn new forms of medical diagnostics, new therapies, new roles for health care professionals and hospitals, new "cures," and even new life forms—ultimately, new futures. The fruits of scientific discovery will increase our odds for healthy lives but will bring forth ethical questions previously incomprehensible.

Lengthening life

Throughout human history, life expectancy has been increasing. Back in the Stone Age, the average life expectancy was about 18 years. Few lived beyond age 50. By 1900, Americans had an average life expectancy of slightly more than 40 years of age. Today, in the United States, the average life expectancy is approaching 80 years.

People are living longer, which in itself shifts the major diseases and health concerns from those that primarily strike the young to those that come with advanced age. In the coming years, we will continue to increase the average life expectancy. Rapid advances in medical and scientific knowledge tell us that substantial gains are still to be made—even in this century. Another doubling of life expectancy is a possibility in the next century. This will allow humans to live, on average, to 150 years of age. More doublings could come later, but such advances are not possible without considerable genetic intervention and serious consequences for society. Of course, with longer life spans comes the need for more medical care, which, in turn, puts additional strain on health care resources and drives costs up.

One process of extending life expectancy is known as "squaring-up the population curve," the eventual goal being to approximate an age curve that looks like a square. The objective is for a person to remain perfectly healthy throughout his or her entire lifetime, say 100 years, until one day the whole body falls apart and the individual dies. Living longer is desirable only if we can live more calendar years while reaching a physical age of considerably fewer years—for example, live 150 years of calendar time but reach a physical age of 60. With recent advances in our understanding of why and how we age, resulting from genetic and computer studies, many scientists are now optimistic that such goals for the future are possible for the human race.

Hospitals of the future

Computers will revolutionize hospitals of the future, particularly through "smart" and "intelligent" health instruments, such as computer-automated operating rooms. Other improvements will include self-cleaning hospital rooms, labs, clothes, and equipment; wearable, micro-miniaturized intensive care prosthesis; mobile hospital units for fast delivery of health care; hospital and operating room robots; and implantable monitors and hospital communicator systems to care for patients off-site. Super-cleaning and perpetually sterile instruments, made of super-teflon so slick that even bacteria can't adhere to it, are also slated for future hospital use. Computerized sensors might also be used to "soften" walls and floors to prevent patient injury due to falls.

Hospitals will also be linked via computer networks to encourage the sharing of costly technology and to facilitate the use of regional specialists and consortia.

Patients, business, and government

Patients will be the real winners in the health care revolution as they continue to assert their rights as health consumers. In the future, they will have the option to "shop around" via computer for the best quality health care at the lowest cost. Patients will become better informed over the next 75 years with the help of computer networks and expert systems and will maintain better health with the help of computer-assisted wellness programs for stress management, nutrition, and physical fitness, for example. Computerized health monitoring systems and control devices may eventually be worn as part of one's attire.

Society can expect many medical advances and breakthroughs in the coming years that will spawn new companies and new directions for health care. The emphasis will be on technology that reduces health care costs while improving health. The use of health service networks will expand dramatically, and hospitals and other health delivery systems will increasingly use computers to manage their operations to allow more efficient utilization of facilities and costly equipment. Businesses will continue to encourage wellness incentives, for example, by returning to employees a share of health expenses saved, and they will continue to provide health education and rehabilitation programs to reduce stress, absenteeism, and accidents.

Government will continue to experiment with regulations to reduce health care costs, make health care available to more people, and to adjust who pays for health care services.

Conclusion

With the accelerating growth of high-tech medical advances, especially with molecular genetics, nanotechnology, computers, and artificial intelligence, there is little doubt of the future direction of health care and health care delivery; we can anticipate longer lives and higher-quality living. **MM**

Earl Joseph is a futurist and president of Anticipatory Sciences Incorporated in St. Paul, Minnesota, and a professor at Walden University.

Minnesota Medicine is the official journal of the Minnesota Medical Association, and its purpose is to provide Minnesota physicians with timely information regarding all aspects of medicine so they can more capably serve their patients and more readily achieve their professional goals. Therefore, the editors are pleased to consider for publication clinical and health papers (clinical studies, reviews, case reports) and essays, letters, poems, and opinion pieces related to medical practice in Minnesota.

Manuscripts

Submit clinical articles, essays, letters, book reviews, and other manuscripts at any time to: Meredith McNab, Managing Editor, *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. Manuscripts are reviewed by the editors and peer reviewed by the Advisory Committee, the Review Board, and other experts in particular specialties.

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Title and Authors' Names

The first page of the manuscript should include: 1) a title—make it short, specific, and direct, 2) the full names of all authors, with their academic degrees, 3) authors' positions in hospitals or other institutions—include current position and the position held when the work reported in your manuscript was done, as well as academic appointments and other information pertinent to the paper's topic.

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Tables must have a title and be on separate pages. If they occupy more than one page, type "*title* (cont.)." If the data in the tables have been previously published, appropriate reference should be given in the text, and permission should be obtained from the original publisher before submission to *Minnesota Medicine*.

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Submit two copies of illustrations, keeping one for your files. Figures should be professionally drawn or photographed, if possible. We prefer glossy, clear black-and-white photographs, but color is acceptable if the contrast is good. Do not send original artwork.

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All references must be cited in the text and should be arranged in the order in which they are cited in the text—*not* alphabetically. Journals should be abbreviated as in *Index Medicus*.

Examples:

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Health Care Fraud

The Net Widens

Janet A. Newberg, J.D.

***Editor's note:** Health care fraud investigating units at the Department of Justice have recently increased their resources to combat fraud in Minnesota. The following article illustrates the seriousness of the department's efforts. Its motto, says author Janet Newberg, assistant U.S. attorney: "If you gotta do the crime, you're gonna do the time."*

Health care is big business in this country. This year, American consumers will spend more than $800 billion on health care, or more than 12 percent of our gross national product. Law enforcement and insurance industry sources estimate that anywhere from 5 percent to 20 percent of all health care claims filed in this country are fraudulent. For this year alone, that means we will lose from $40 billion to $160 billion to health care fraud.

The results of health care fraud investigations nationwide reveal that health care providers defraud the system in many ways.

Methods of Fraud

One method of defrauding carriers, and the easiest to prove in court, is the submission of health care claims for services that were never rendered by the provider. A provider may bill an insurance carrier for services personally rendered to patients—when the provider was actually on an overseas vacation; or a mental health care provider may bill an insurance carrier for one hour of individual psychotherapy rendered—to a completely nonverbal, developmentally disabled man with an IQ of 27.

A more common method of defrauding insurance carriers involves the submission of claims for medical services more expensive than those actually rendered. Pharmacies may bill insurance carriers for dispensing Keflex to a patient when the drug actually bottled and provided to the patient was the generic cephalexin. Providers may bill insurance carriers for an extended or comprehensive office visit when the patient merely saw the provider for a few minutes and the provider simply ordered a rapid strep test.

"U.S. attorneys are beefing up their efforts to prosecute these often complex crimes."

Manipulation of the ICD-9 and CPT codes to fraudulently ensure coverage or to fraudulently maximize insurance reimbursement is also common. Medicare, for example, doesn't pay for routine foot care. Clipping a nursing home resident's toenails every two months using a code defined as the debridement of severely mycotic nails is not allowed, yet done by some providers. Another provider who practices acupuncture for the relief of pain may bill using the code representing a "peripheral nerve block." Why use this code? Many insurance carriers do not pay for acupuncture, but they do pay for peripheral nerve blocks.

"Unbundling" has become a popular method of insurance fraud. Some medical services are properly billed and paid as "package" services. A global code for certain types of surgeries, for example, may include the surgery itself and all postop visits for a period of time following the surgery. Some practitioners illegally unbundle the global billing code and bill using separate codes for the surgery itself, the first postop visit, the second postop visit, etc. Unbundling results in increased insurance reimbursement to the practitioner.

Finally, medical providers may defraud insurance carriers through the offer or receipt of illegal kickbacks or referral fees. A federal statute makes it a felony to solicit, offer, pay, or receive a kickback to induce the referral of a patient if Medicare or Medicaid funds are involved. Therefore, if an internal medicine group that services Medicare or Medicaid patients refers its patients to a home infusion company wholly owned by the physician partners of the internal medicine group, the physicians involved could face up to five years in a federal prison and fines up to $250,000.

Incidentally, some confusion has arisen over the effect of MinnesotaCare (formerly Health Right) on Medicare and Medicaid anti-kickback law. The new state statute allows a window of opportunity for medical providers to bring their financial practices into line with the anti-kickback statute and the safe harbor regulations before state administrative sanctions will be imposed. The state statute does not affect the operation of the federal anti-kickback law. If a provider's financial conduct violated the federal anti-kickback law at any time before or after passage of MinnesotaCare, that conduct is subject to federal felony prosecution, regardless of any actions the provider takes during the window of opportunity. Practically speaking, however, a provider's chances of attracting the attention of a federal prosecutor and a federal grand jury lessen substantially if the provider takes actions to bring his or her past financial conduct into compliance with the anti-kickback law. One note of caution, however: The Minnesota Department of Health refers to the documents filed by providers attempting to bring their financial practices into line with the kickback law as "transition plans"; members of the law enforcement community would probably refer to these same documents as "confessions."

The Cost-Benefit Equation

Fraud committed by health care providers against insurance carriers is in many ways no different from other white collar crimes. White collar offenders, unlike many impetuous violent offenders, approach the commission of their crimes with a cost-benefit analysis: 1) What benefits will I reap from the commission of this crime? 2) What are the risks that I will be caught? and 3) If caught, what are the risks that I will face unpleasant sanctions?

For many white collar offenders, the benefits of factor one in this equation greatly outweigh the risks represented by factors two and three. Thus, they engage in fraud.

The government, law enforcement agencies, and insurance carriers have been working hard in recent years to change the terms of this equation. Increased governmental resources devoted to the investigation and prosecution of health care fraud means that fraudulent providers face a higher likelihood of getting caught. Heightened penalties and sanctions for health care offenders mean that the potential sanctions for fraudulent conduct are becoming more and more unpalatable to prospective crooks.

More Law Enforcement

Spiraling health care costs and growing evidence of the amount of fraud committed in the health care industry have received a lot of attention recently here and in Washington.

U.S. attorneys throughout the country have authority to bring criminal or civil charges against providers who defraud any government-funded insurance carrier. Additionally, a U.S. attorney may prosecute any provider who defrauds a private insurance carrier if the conduct violates a federal statute. The federal statute most commonly implicated is the mail fraud statute; any provider who uses the U.S. mail to submit phony claims to carriers or to receive payment from carriers violates federal law.

Special health care fraud units were recently established in 12 U.S. attorneys' offices throughout the country. These units consist of criminal and civil attorneys and support staff to pursue providers who defraud the system. Other U.S. attorneys are beefing up their efforts to prosecute these often complex crimes by adding personnel with special experience handling these types of cases or by providing specialized training to prosecutors and attorneys.

> "Fraudulent providers now face a higher likelihood of getting caught."

Last year, the Federal Bureau of Investigation transferred approximately 50 agents from its counterintelligence and domestic counterterrorism sections into health care fraud enforcement. It more than doubled its budget for health care fraud enforcement from 1989 to 1991, and it has embarked on an aggressive training program to acquaint its agents with the intricacies of health care fraud enforcement. FBI health care fraud investigations resulted in 82 criminal indictments and informations in fiscal year 1991; agents obtained 409 indictments in fiscal year 1992—a one-year increase of almost 400 percent.

The U.S. Department of Health and Human Services (HHS), the agency that oversees the Medicare program, and the Health Care Financing Administration (HCFA), the funding and regulatory source for this program within HHS, recently took several steps to tighten up fraud enforcement involving Medicare, including the following:

1. HCFA now requires Medicare intermediaries (the insurance carriers that process Medicare claims for the government) to set up independent fraud units.
2. Medicare intermediaries must engage in patient outreach to educate patients about Medicare's rules and to encourage patients to report potential provider fraud to Medicare.
3. Physicians and state societies will be notified by the government of potential billing problems and scams operating in their areas.
4. HHS's criminal Medicare investigators will provide training to the Medicare intermediaries on how to identify and properly report Medicare fraud.

Health Fraud Task Force

Tom Heffelfinger, U.S. attorney for the District of Minnesota, has taken a particular interest in health care fraud enforcement. In July 1992, he established a new Health Care Fraud Task Force. This task force consists of representatives from several law enforcement agencies with responsibility for investigating and prosecuting health care fraud. The agencies include the office of the U.S. attorney for the District of Minnesota, the Department of Health and Human Services, the FBI, the Department of Veterans Affairs, the Postal Inspection Service, the Railroad Retirement Board, the Defense Criminal Investigative Service, the Food and Drug Administration, and the state attorney general.

This new task force is charged with the following responsibilities:

1. coordinating complex investigations of providers or patients who defraud health insurance carriers;
2. working together to accomplish undercover operations in health care investigations;
3. sharing investigative information to identify trends in health care fraud; and
4. uniting law enforcement agents with years of experience in the health care fraud field.

Although membership in the task force is restricted to law enforcement agencies, each member agency of the task force is developing and solidifying working relationships with fraud investigators from private insurance carriers to increase the flow of fraud case referrals into the federal and state criminal justice systems.

Sanctions

Health care providers who defraud insurance carriers now face a wide range of criminal, civil, and administrative sanctions:

1. Providers who violate criminal laws are subject to criminal prosecution by the U.S. attorney, the state attorney general, or local county attorneys. State charges brought against health care providers are frequently based on the state theft by false representation, theft by swindle, and forgery statutes. Federal prosecutions against health care providers are usually based on the mail or wire fraud statutes, the false claims statute, the Medicare and Medicaid fraud statutes, and the Medicare and Medicaid anti-kickback statute.
2. Both the U.S. and the state government have the power to file civil lawsuits against providers who defraud government-funded health insurance programs, such as Medicare and Medicaid. Both the state and the federal government have laws that allow the government to sue for three times the amount actually stolen by the provider. The federal False Claims Act gives the government the additional ability to obtain penalties in the amount of $5,000 for each false claim filed.
3. If a provider defrauds Medicare or Medicaid, the U.S. Department of Health and Human Services can bring a civil monetary penalties (CMPL) action against the provider. These CMPL actions can result in penalties against the provider amounting to $2,000 for each false claim submitted by the provider.
4. If a provider is convicted of defrauding Medicare or Medicaid, HHS will exclude that provider from participation in those programs for a minimum of five years. For providers who service a lot of Medicare and Medicaid patients, this sanction will effectively put them out of business for several years.
5. Convictions obtained against licensed medical providers are reported by prosecutors to the appropriate licensing board. A provider's license to practice could be limited, suspended, or revoked based on the conduct underlying the conviction.

Finally, MinnesotaCare imposes a new layer of administrative penalties on providers. Providers who violate the anti-kickback provisions of the act are subject to a fine of $1,000 or 110 percent of the estimated financial benefit to the provider.

Conclusion

With expanded resources directed at health care fraud detection and prosecution and additional sanctions available to punish violators, filing fraudulent claims should no longer be a temptation for health care providers. MM

Janet Newberg is assistant U.S. attorney at the U.S. Department of Justice, District of Minnesota. Previously, she headed the Medicaid fraud control unit at the Minnesota attorney general's office for six years.

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The State of Health Promotion in Minnesota

A. Stuart Hanson, M.D.

A presidential election year is a good time to look back and assess the current state of affairs, as well as a good time to look forward. Health promotion and disease prevention take years. Looking back several decades offers a useful perspective.

Lyndon Johnson assumed the presidency in 1963 following Kennedy's assassination; in 1964, we elected him to office. Johnson started two wars—first the war in Vietnam with the Tonkin Gulf Resolution and, second, the war on poverty inaugurating social programs. His health targets were the three common killers at the time—stroke, heart disease, and cancer.

What has happened in the 30 years since Johnson took office? Scars from the war in Vietnam linger on. We have had a Persian Gulf war with an afterglow that is diminishing and a threat that is continuing. While poverty declined in the 1970s, it increased 12 percent in the 1980s.

What has happened to the common killers of the '60s and '70s? We find that stroke is markedly reduced, as much as 45 percent. Heart disease has been reduced up to 30 percent. Accidents are less common, and cancers, excluding lung cancer, are causing slightly fewer deaths. On the other hand, lung cancer continues to increase and now causes more deaths than any other cancer in both men and women. Overall, cancer has increased 30 percent and will continue to increase beyond the year 2000.

"Behavior-caused illness and intentional injury need our concerted effort now."

Chronic lung disease and emphysema are steadily increasing. Homicide and suicide have not changed dramatically. And we have AIDS, the new killer of the decade, which is absorbing billions of research dollars—equaling half of the national health research funding. For perspective, you should remember that in 1991 there were 16 preventable deaths in the United States due to tobacco for every death due to AIDS. In Minnesota the ratio was 50 to 1.

What should we set as health targets for the future? First, we must not let up on early detection and intervention for disorders such as high blood pressure, cancer, and cholesterol abnormalities. There have been major gains—particularly with hypertension, heart disease, and stroke—and more gain is possible.

Second, we must focus on behaviors and lifestyles. Better nutrition and more exercise could save many more lives from heart disease, stroke, and cancer. Less tobacco abuse will reduce heart disease, stroke, cancer, and chronic lung disease. A smoke-free society by the year 2000 is still possible. Minnesota is one of the sites for the National Cancer Institute's American Stop Smoking Intervention Trial (ASSIST). Abuse of alcohol and other drugs not only causes disease, but it also is associated with other high-risk behaviors that lead to accidents and interpersonal abuse and injury.

Motor vehicles are still not as safe as they could be. Motorcycles, off-road vehicles, and bicycles could be used more safely, but automobiles are still transportation's greatest cause of unnecessary injury and death.

Finally, we must make violence, abuse, and neglect socially unacceptable in our society. Interpersonal relationships, issues of self-image, neglect, abuse, and violence are major factors in personal adaptation to society. Suicide and homicide remain major causes of death. Intentional injury to self and others should not occur! The Minnesota Medical Association has called for a violence-free society by the year 2010. In the next 17 years, we have the opportunity to change societal values, to change behavior, to break the cycles of interpersonal abuse, and to solve one of humanity's most perplexing problems in our adaptation to one another.

A new presidency gives new opportunity to reassess the public health. As physicians, we can look at change as a threat or an opportunity. Stroke, heart disease, and cancer remain with us and we cannot let up. AIDS will not be ignored. Behavior-caused illness, such as poor fitness and nutrition; addiction to tobacco, alcohol, and other drugs; transportation safety; and intentional injury, need our concerted effort now. Let us make interpersonal abuse and violence no longer socially acceptable. Let us plan for a healthier future! MM

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People and Places Making Medical News

People

Medical Group Management Association President

Minnesotan Joseph Mitlyng Jr. was named president-elect of the Medical Group Management Association, the largest national organization representing medical group practice. Mitlyng, executive vice president and chief operating officer of Park Nicollet Medical Center, based in St. Louis Park, Minnesota, will assume the presidency in October 1993.

The Medical Group Management Association's membership includes more than 5,500 medical groups and 13,000 administrators and managers.

Red Cross Medical Director

Ted Eastlund, M.D., has been named medical director of St. Paul Regional Red Cross Blood Services. In his new role, he will provide medical guidance for the blood service, which collects, tests, and distributes approximately 185,000 units of blood annually for use by more than 150 hospitals in the Midwest. In addition, he will continue to provide medical leadership for Red Cross's Tissue Services unit, which procures and processes bone and other tissue. Eastlund has been medical director of that unit since 1987.

Eastlund is also an assistant professor in the Department of Laboratory Medicine and Pathology at the University of Minnesota Medical School and recently began a one-year term as chair of the Transplantation Immunology Committee of the American Association of Blood Banks.

Places

MCPI Receives National Grant

The Minnesota Cancer Pain Institute has received a $276,101 grant from the National Cancer Institute to study ways to improve cancer pain relief in Minnesota. The two-year Minnesota Cancer Pain Initiative Demonstration Project will involve cancer patients, their families, and health care providers in six Minnesota communities.

Three out of four families, or 1.25 million Minnesotans now living, will be affected by cancer. Of the 8,300 Minnesotans who died from cancer in 1990, 70 percent to 90 percent had significant cancer pain. With proper pain management, 95 percent could have had complete or nearly complete relief, according to the Minnesota Cancer Pain Initiative, a statewide consortium of cancer pain researchers and educators.

"An important outcome of this project is to test new methods to diffuse and promote state-of-the-art cancer pain management procedures not only in these Minnesota communities, but for the rest of Minnesota and the nation," said Thomas Elliott, M.D., of The Duluth Clinic, who is the study's principal investigator.

Martin Oken, M.D., medical director of the Virginia Piper Cancer Institute at Abbott Northwestern Hospital in Minneapolis, and David Murray, an epidemiologist from the University of Minnesota School of Public Health, are co-principal investigators in the study.

Methodist Achieves Teaching Hospital Status

The Commission on Cancer of the American College of Surgeons has designated Methodist Hospital's cancer program as a "Teaching Hospital Cancer Program," the highest designation awarded by the commission. This three-year accreditation in the teaching hospital category recognizes Methodist for its commitment to providing the latest oncology resources, medical treatments, and training.

'U' Hospital and HealthEast Start Joint Program for Rehab Patients

The University of Minnesota Hospital and Clinic in Minneapolis and the St. Paul-based HealthEast Bethesda Lutheran Hospital and Rehabilitation Center have begun a collaborative patient program that includes treatment of University Hospital patients in the rehab unit of the HealthEast facility.

The arrangement also includes teaching ties between the two institutions. This month, HealthEast Bethesda will become a training site for the university's physiatry residency training program. The program requires that a doctor have four years of training in order to become a physiatrist. HealthEast has been providing residency training for the University of Minnesota Medical School family practice program since 1971 at St. Joseph's Hospital in St. Paul and St. John's Hospital in Maplewood.

LeAnn Snow, M.D., a physiatrist with University of Minnesota Physical Medicine and Rehabilitation Associates and a university instructor, is providing medical direction at the HealthEast center.

Group Health/MedCenters Select Headquarters Site

Group Health/MedCenters announced in November that its headquarters for the newly merged company will be in Bloomington in a building owned by Ceridian

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As a service to Minnesota Medical Association members and their clinics, the Minnesota Medical Services Corporation has compiled the Legal Services Resource List. The MMSC will send you, at no charge, individual profiles of law firms that have met MMSC's participation requirements, including completion of a survey, provision of references, and level of resources devoted to providing legal services to Minnesota physicians. Some of the services listed below are provided by non-attorneys.

A list of non-legal consultants, the MMSC Management Consulting Resource List, is also available. For more information, write to the MMSC staff at 2221 University Avenue S.E., Suite 400, Minneapolis, MN 55414, or call 612-378-0305 or toll free 1-800-999-1875.

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The Legal Services Resource List, a special service for Minnesota Medical Association members and their clinics, was compiled by the Minnesota Medical Services Corporation, the product and service subsidiary of the MMA. Neither the MMA nor the MMSC endorses these companies or makes judgments regarding their services. Categories of service listed above are not all inclusive; call MMSC for a more complete listing.

Corp. The merged companies decided that despite financial incentives offered by St. Paul and Minneapolis, Bloomington would be the best deal in the long run.

The city of St. Paul had offered a "substantial" portion of $4.6 million in tax increment district proceeds to help Group Health buy the North Central Life Tower in downtown and had offered to subsidize several hundred parking spaces in a new ramp, said Ken Peterson, director of the city's Planning and Economic Development Department. St. Paul leaders have said that downtown retailing depends primarily on downtown workers, and Group Health/MedCenters could have helped make up for the departure of 2,100 West Publishing employees. But the financial package in Bloomington looked better, said George Halvorson, the company's new president and chief executive officer, and a survey of company employees showed it was the preferred choice.

Socioeconomics

HealthEast Announces Program for Uninsured

HealthEast announced in December a new program to provide health care for medically underserved residents of the East Metro area. Called the new Metro East Community Health Network, the program is a collaborative effort of HealthEast, HealthEast Foundation, an independent philanthropic organization, and HealthEast Care, a joint-venture managed care organization of more than 500 physicians. The program will be financed through a $4 million fund with plans for future growth to $30 to $40 million. Details of the program were disclosed during HealthEast's annual report to the community meeting at the World Trade Center in St. Paul.

HealthEast vice president and chief financial officer Douglas W. Fenstermaker said the program would link HealthEast Care services with other private and public providers and East Metro health and human service agencies. He referred to the Community Health Network as a "safety net" that would complement other programs, such as MinnesotaCare and Medical Assistance.

Funds for the program will be administered by HealthEast Foundation, and all contributions will be used as an endowment and retained in perpetuity. If the program is deemed unsuccessful or no longer necessary at any time, all contributions to the fund will be returned to their original sources. Fenstermaker said $4 million is needed to begin the program, half of which will be realized through a contribution from HealthEast, with the balance coming from private foundation grants. The HealthEast portion may be used early on in the program to assure coverage for a defined pilot study group of area residents.

Hospitals Will See No Increase in Federal Subsidies

The Health Care Financing Administration has notified states that it is freezing 1993 subsidies for hospitals with unusually large numbers of low-income patients—a surprise to Minnesota hospitals, which were expecting a $10 million increase in federal aid over 1992. The state increased the number of hospitals that qualify for the subsidies from 22 percent to about 70 percent in anticipation of a fund increase. Minnesota expected to get $27 million for fiscal 1993, which started last July, but will only get $17 million again, said Dave Lee, financial analyst for the Minnesota Hospital Association.

The increase in subsidies was expected to match Medicaid funds raised through a state surtax that Minnesota hospitals are paying. The federal government matches about dollar for dollar the funds states spend on Medicaid.

Program Strives to Reduce Nursing Home Use

With the goal of stemming rising nursing home costs for the poor, 36 Minnesota counties are participating in a $1.6 million program of services aimed at reducing the state's dependence on nursing homes. The program, which will coordinate community and government services for elderly Minnesotans to enable more to live at home, is the first step in a 20-year effort called Senior Agenda for Independent Living. Six counties, including Dakota, Ramsey, and Washington, have begun operating the program.

The participating counties are working to streamline outreach efforts to get services to thousands of frail people. The counties are developing housing programs, such as assisted-living apartments, that are less restrictive and cheaper than nursing homes; caregiver support; day care and short-term respite programs to assist families who support older relatives; and home care to provide medical, physical, and other care that helps people stay in their homes. Counties also are attempting to move competent people out of nursing homes and back to their communities with the help of local social service programs. The project's goal for the next year is to begin building community networks of neighborly services that seniors can reach through a single toll-free phone call.

State and federal tax dollars pay about 65 percent of the $28,000 yearly cost of nursing home care for 29,000 Minnesotans, two-thirds of the state's nursing home residents. In 1990, that came to $507 million, and the numbers are rising.

Moose Lake Center Slated to Become Prison

The Moose Lake Regional Treatment Center would become a medium-security prison for violent sex offenders with psychopathic personalities under a proposal by the Minnesota Department of Human Services. Psychopaths who have finished prison sentences but are still considered dangerous are currently housed at the state's Security Hospital in St. Peter, but their numbers are outgrowing the hospital's ability to house them. Additionally, officials believe psychopathic patients need to be separated from the mentally ill at St. Peter. Minnesota is the only state where such criminals are mixed with other patients in a state mental hospital.

Under the plan, the Department of Corrections would take over the Moose Lake center, which houses about 260 mentally ill and developmentally disabled people, who would be transferred to such places as nursing homes, community care, or the Brainerd Regional Treatment Center. If supported by the 1993 Legislature, an $18 million, 100-bed facility would possibly open in 1995 to house repeat sex offenders with psychopathic personalities.

American Indian Health Care Inferior

American Indian health care is far inferior to that of the general population, despite the federally funded Indian Health Service's efforts to provide care to Indians on reservations, according to a study issued by the St. Paul-based American Indian Health Care Association. Off-reservation Indians are ineligible for care through the Indian Health Service, which serves only about half of the nation's 2 million Indians. The two-year, 220-page study, which looks at American Indian health care in Minnesota, Iowa, North Dakota, South Dakota, Montana, Idaho, Oregon, and Washington, found that access to health care is limited for American Indians both on and off reservations.

The study found that in Minnesota, tuberculosis rates were nearly five times higher and mortality rates were 29 percent higher for American Indians than for the general population. Rates for heart disease, stroke, hepatitis, cirrhosis, diabetes, and suicide are much higher than for any other group. Only cancer rates are lower for Minnesota Indians than for the general population.

Indian health care facilities are limited in scope, are forced to ration services, and are located too far from urban Indians. Access is also limited to non-Indian health care facilities because of a lack of sliding-fee scales, outreach, transportation services, culturally appropriate health education materials, and culturally sensitive providers.

State Health Coverage Costs Below Average

The cost of employer-based health care insurance in Minnesota is 15 to 16 percentage points below the national average, according to a survey of 1,050 U.S. cities that compared costs of comprehensive major medical indemnity plans covering groups of 15 to 45 workers. The average premium nationally was $375 a month per employee. In Minneapolis, the average was $318.78; in St. Paul, $315; and in Rochester, $292.50, among the lowest averages in the country. Premium costs for most other surveyed Minnesota cities were similar to those in the Twin Cities. However, most Twin Cities employees—70 percent—are covered by managed care plans, not indemnity plans.

The two highest-cost cities in the survey were Los Angeles at $667.50 and Miami at $660. The top 89 cities were in California or Florida. New York was No. 90. Minneapolis ranked 694th, St. Paul 655th, and Rochester 907th.

The cost differences are due to such factors as differences in the way doctors practice medicine, the cost of malpractice insurance, employee salaries and office space, and the cost of treating for substance abuse and AIDS.

VA Will No Longer Fill Secondary Prescriptions

The Department of Veterans Affairs notified veterans in the Upper Midwest in early November that it will no longer fill prescriptions from private physicians—a policy that actually has been ignored at the Minneapolis VA Medical Center for 15 years, said officials. In the past, many veterans' prescriptions have been filled by mail after seeing personal physicians rather than VA physicians.

The measure, which affects about 1,300 veterans, could cut $350,000 from the hospital's $15 million pharmacy budget. However, the hospital may continue filling prescriptions from private doctors if it appears that a large number of veterans would begin seeing VA physicians, which could be more costly than filling prescriptions from private physicians.

Medicare Premium Increase

Medicare premiums and deductibles for hospital stays are increasing for 1993, the federal government announced in November. Premiums for Part B insurance are increasing from $31.80 per month to $36.60, a 15 percent increase. Deductibles for Part A insurance are increasing from $652 to $676 per hospital stay, a 3.7 percent increase.

Medical Research

Excess Pressure May Not Require Valve Replacement

St. Jude aortic heart valves may not need to be replaced when ultrasound tests indicate excess blood pressure inside patients' hearts, according to Minneapolis Heart Institute researcher Irvin Goldenberg, M.D., director of the institute's heart failure clinic. Doppler echocardiogram tests show that 20 percent of patients with an artificial aortic valve manufactured by the Minnesota company have pressure imbalances, but Goldenberg's studies indicate that the patients are in no special danger unless they have physical symptoms of possible valve malfunction. In addition, the risk of dying from surgery to replace the valve may be as high as 5 percent.

Many doctors have believed that an "abnormal" Doppler meant an artificial aortic valve may be malfunctioning and might need to be replaced, said Goldenberg. His study followed 59 patients with the apparent abnormality and found no significant difference in three-year survival between those who underwent surgery for valve replacement and those who didn't. He presented his findings at the American Heart Association's annual scientific session in New Orleans in November.

Genetic Screening Predicts Arthritis

A Mayo Clinic study shows that genotyping patients with rheumatoid arthritis can help determine which patients are likely to develop severe joint disease and major rheumatoid organ disease, according to a study published in the November 14 *Annals of Internal Medicine.* Having a genetic marker available could help target treatment to patients who need it most.

Of 102 patients diagnosed with rheumatoid arthritis in the study, 96 percent had a disease-associated gene, and 46 percent showed a double dose of the gene.

"The major new finding of our study is that the second disease-associated gene in patients with arthritis correlates with disease severity," says Cornelia Weyand, M.D., Division of Rheumatology and Internal Medicine, Mayo Clinic, and co-author of the study. In patients who had the two disease-associated genes, 60 percent required surgery for joint destruction. Only 25 percent of patients typed with one disease-associated gene required surgery.

Cheese and Airline Food Tied to Disease

Add cheese to the list of foods to be watched closely for Salmonella contamination, according to a study published in the December 9 *Journal of the American Medical Association.* "The potential for bacterial pathogen contamination of cheese during manufacture and processing has important epidemiologic implications, particularly because cheese consumption has recently increased in the United States," writes Craig W. Hedberg, M.S., from the Acute Epidemiology Section, Minnesota Department of Public Health, Minneapolis, with colleagues.

The authors tracked a multistate outbreak of food poisoning in 1989 caused by two strains of the bacteria, *Salmonella javiana* and *Salmonella oranienburg*, and conducted two case-control studies. The authors found 147 Salmonella cases in Minnesota associated with the outbreak; 15 more were found in Wisconsin, and one each in Michigan and New York.

"Cheese and other similar food items may be more common sources of apparently sporadic *Salmonella* infections than previously recognized," the authors write. "We urge federal and state regulatory agencies to take necessary measures and implement programs to address problems identified in this cheeseborn outbreak of salmonellosis."

A related study, also written by Hedberg and colleagues, traces an international outbreak of shigellosis, an acute intestinal infection caused by *Shigella*, to contaminated airline food. The outbreak was identified when 21 players and staff from the Minnesota Vikings football team developed shigellosis that was associated with consumption of cold sandwiches prepared at the airline's flight kitchen in 1988. Following local and national news coverage, more than 700 people who had flown the implicated airline reported gastrointestinal illness to the Minnesota Department of Health.

"Prevention of *Shigella* transmission in mass catering establishments may require reduction of hand contact in the preparation of cold food items or elimination of these items from menus," write the authors.

Bodies of Anorexia and Cancer Patients Show Similarity

After noting that anorexia nervosa patients look strikingly similar to dying cancer patients, Claire Pomeroy, M.D., a specialist in infectious diseases at the Minneapolis Veterans Affairs Medical Center, in collaboration with psychiatrist Elke Eckert, M.D., who heads the University of Minnesota's Eating Disorders Program, discovered that both have similarly high levels of the cytokine IL-6, or interleukin-6, which plays a role in the body's defense against infection. The researchers would like to determine whether high IL-6 levels are a cause of anorexia or an effect, but note that it is not possible to measure the levels in patients before they develop anorexia nervosa. "It will be interesting to study other groups of people starving for other reasons to find out which comes first, abnormal cytokine levels or weight loss," said Pomeroy.

As the anorexia patients gained weight, their IL-6 levels moved downward toward normal, and by the time they reached 90 percent of ideal body weight, their IL-6 levels were not significantly different from those in a control group.

Study Questions Value of Annual Mammograms

Annual mammograms do not appear to reduce the mortality rate for women under 50, according to initial findings of a long-awaited, controversial Canadian study. However, U.S. health officials urged women to continue following current guidelines until the new findings can be evaluated.

The study, published in the November 15 *Canadian Medical Association Journal*, involved more than 90,000 women with no history of breast cancer at 15 centers across Canada starting in 1980. More than 50,000 of the women, aged 40 to 49, were divided into two groups; one group received annual screenings for five years with mammography and physical breast examinations by a health professional; the others underwent an initial physical exam but no mammograms or follow-up annual screenings. The study found no difference in the breast cancer death rate between the two groups over a seven-year period.

A second part of the study, which included more than 39,000 women, looked at the value of various screening techniques in women aged 50 to 59. Early results show that any additional benefit mammography may provide over skilled physical examination is not yet detectable, but longer-term follow-up over 10 to 20 years is needed, said Anthony Miller of the University of Toronto, principal researcher in the study.

Results of the Canadian study are similar to breast-screening studies in Europe that have shown little evidence of a reduction in breast cancer deaths following mammography in women aged 40 to 49, said Miller. **MM**

K. James Ehlen, M.D.
Chairman, CEO Medica

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House of Medicine Must Unite to Shape Health Care Reform

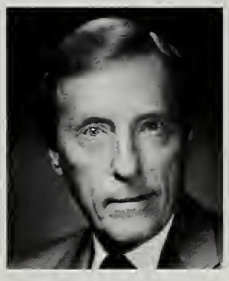
Edmund C. Burke, M.D.

The clamor for national health care reform has reached a deafening roar. The question is no longer whether reform will take place, but rather when—and what—changes will occur. President Clinton has said he will offer a proposal within his first 100 days in office.

The time for physicians to unite and send a single message to Congress was yesteryear, but, unfortunately, our profession has been plagued with disagreement. The American Medical Association proposed Health Access America in 1990, but rather than debating and modifying this national health care reform plan and offering it to Congress together with the AMA, many specialty societies have proposed and lobbied for their own plans—even distributed their own press releases. Everyone has an oar in the boat but no one is at the tiller.

If physicians are to be heard, we must rally behind the AMA—before we lose our place at the health reform table. "Without a singular voice, the powers that would like to manipulate us like pawns in a chess game can do it—the divide and conquer approach," says Dr. William Jacott, AMA trustee, in this month's Face to Face interview (page 9). If not for ourselves, we must unite for the good of our patients.

John Lee Clowe, M.D., AMA president, offered a similar message before the House of Delegates at the AMA interim meeting in December. "No matter how much one specialty may believe it has come up with an innovative answer, a unique answer—the truth is: Time has run out for innovative, unique, or new," he said. "We must have a single voice." If the profession does not speak as one, it will confuse the public and put the profession in a difficult position with the new administration, he warned.



> "The time to unite and send a single message to Congress was yesteryear, but, unfortunately, our profession has been plagued with disagreement."

Up to now, health care reform has taken place only within state legislatures. Hawaii's much-admired plan began in 1975 and has had an enviable track record (of course, Hawaii is exempt from certain ERISA provisions that now limit other states' options). Florida, Vermont, and Oregon, in addition to Minnesota, have enacted health care reform legislation, says this month's cover story (page 14), which refers to these states as "laboratories" for testing solutions to the health care crisis. Congress will be watching them closely for successes that can be imitated at the national level.

So why has health care reform taken a top position on state and national agendas? A recent report from the Commerce Department predicts that health care spending will rise 12.1 percent to $939.9 billion this year and will continue to climb at a double-digit pace unless serious reforms are implemented. In 1992, U.S. health care spending reached $838.5 billion—or $3,160 for every man, woman, and child—an 11.5 percent increase over 1991. Meanwhile, the general economy grew only 5 percent to 6 percent (before adjusting for inflation).

As if the drastic cost increase isn't bad enough news, *The Wall Street Journal* reported in January that a number of large companies are attempting to rein in health care costs by cutting health benefits. DuPont, for example, plans to reduce health benefits for 145,000 current and former employees and families next January, and Unisys plans to cease paying retirement and medical benefits in three years.

Health care access and affordability have reached a crisis, and Congress and state legislatures will be instituting needed reforms in the coming months and years. If physicians are to be heard, we must resolve our differences and approach Congress with a unified message. As Susan Hershberg Adelman, M.D., wrote in a recent *American Medical News* commentary, "It is a fantasy to imagine that Congress, HCFA, the PPRC, or anybody else in Washington is interested in fairly balancing the interests of multiple medical and surgical specialties." However, they may listen to the medical profession as a whole, and what better voice do we have than the American Medical Association? We should argue our ideas before the House of Medicine, not before public and governmental scrutiny. MM

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Letters

Do you have a concern? *Minnesota Medicine*'s Letters to the Editor department provides a forum for discussing, rebutting, or debating views presented in *Minnesota Medicine*—or for sharing any aspect of practicing medicine in Minnesota. Your letter will reach most of the doctors in the state.

Please keep letters under 500 words and mail them to: Edmund C. Burke, M.D., Editor-in-Chief, *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414.

The Lack of Futility in Screening for Prostate Cancer

I am writing regarding a recent Point/Counterpoint article entitled, "The Futility and Lack of Cost-Effectiveness in Screening for Cancer," by Seymour Handler, M.D. (*Minnesota Medicine*, December 1992, page 13).

In this article, Dr. Handler draws three conclusions in regard to the treatment of several solid organ cancers, including prostate cancer. I am rather appalled by Dr. Handler's statements regarding prostate cancer. Nobody denies that there is a high incidence of cancer of the prostate that is of no clinical importance whatsoever in the elderly, but clinicians are faced daily with a large number of patients who have a significant cancer. In 1992, prostate cancer was the most common cancer in American men, surpassing lung cancer, and was the second most common cause of death after lung cancer in American men. It is not necessarily true that we find innocuous cancer with our advanced diagnostic testing, and the issue of whether diagnosing and treating prostate cancer earlier results in improved survival must be left to future studies that have not even been started in this country.

Dr. Handler's reference to an article from Sweden regarding prostate cancer is irrelevant because the study involved a patient population that would not be treated surgically in most institutions in this country. This article was misleading and does not represent the situation in the United States because active treatment in some of the European countries is not feasible for various reasons.

It is of interest to your readers and, I hope, to Dr. Handler, that a positive biopsy result was found in close to one-third of patients in a group seen at the Mayo Clinic with an increased prostatic-specific antigen level but a normal rectal examination. More disturbing, however, was the histopathologic finding from radical retropubic prostatectomy in those patients who are young enough to undergo this operation. We found cancer already outside the prostate in one-third of the patients. Moreover, the average volume of these cancers was about 7.5 cubic centimeters, corresponding to the size of a cancer that is diagnosed as a clinical B1 or T2a lesion.

Thus, I would like to refute most of what Dr. Handler said, including his statement, "We must not let the dog walk the man." This is a certain case of don't let the pathologist walk the clinician.

Horst Zincke, M.D.
Professor
Mayo Medical School
Chair
Genitourinary Oncology Committee
Mayo Clinic
Rochester, Minnesota

Dr. Handler Responds

Dr. Zincke expectedly states the urology party line. If a patient has prostate cancer, we'll treat it like a cancer. The more prostate cancer we find, the better. No matter that many prostate cancers are of no clinical significance. No matter that no study yet has proved that radical prostatectomy improves survival in prostate cancer. No one questions that prostate cancer is common and that it kills many American men. What we do not know is whether early detection makes a difference. Instead of letting improved technology diagnose a lot of insignificant cancers, we should better understand the natural history of this unusual-behaving cancer. If we don't, we may be treating a lot of disease that is better left undiagnosed and untreated.

Seymour Handler, M.D.
Pathologist
North Memorial Medical Center
Assistant Professor of Laboratory Medicine and Pathology
University of Minnesota Medical School
Minneapolis, Minnesota

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I would like any report of deaths or near deaths from anaphylaxis due to food or insect allergy. I would also like reports of deaths that were prevented by the use epinephrine kits.

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Claude A. Frazier, M.D.
Allergist
Asheville, North Carolina

Continued

Working Together to Improve Rural EMS

Congratulations to Dr. David M. Larson, M.D., the first president of the Minnesota Association of Emergency Medical Services Physicians (MAEP), interviewed in the November 1992 issue of *Minnesota Medicine* (page 7). I was pleasantly surprised to discover that MAEP developed simultaneously with the Rural Emergency Medical Service for third-year undergraduate medical students participating in the University of Minnesota's Rural Physician Associate Program (RPAP). The 30-plus RPAP students are in rural areas for nine to 12 months with practicing front-line physicians. As with MAEP, economic support for this effort came from the Minnesota Department of Health. What a pity the two groups did not collaborate.

In 1991-92, RPAP was in 30 rural Minnesota communities under the direction of Lynn Boergerhoff, M.P.H., paramedic and staff member. The goals of the Rural Emergency Medical Service of the Rural Physician Associate Program (REMSPAP) are quite similar to MAEP's as Dr. Larson describes in the November interview. RPAP's efforts complement MAEP's efforts in two ways: 1) RPAP medical students learn the local health care system, improve clinical skills in the management of persons who are suddenly ill or injured, and learn to appreciate the roles and responsibilities of rural family physicians who serve as physicians, medical directors, or advisers for their community's ambulance service; 2) REMSPAP helps provide education and decision-making resources to practicing physicians, medical directors, or advisers for their community's ambulance service personnel through basic trauma life support courses; provides a computer network linking all sites together and linking the RPAP office in Minneapolis with education, electronic mail, and computer literature search services; and it publishes a newsletter for rural family physicians and other primary care physicians active in EMS.

Perhaps in the future, MAEP, REMSPAP, and RPAP can become a rural emergency medical services consortium establishing the best EMS prototype available in the nation!

John E. Verby, Jr., M.D.
Professor
Family Practice and
Community Health
Former Director
Rural Physician Associate Program
University of Minnesota
Medical School
Minneapolis, Minnesota

Cookbook Medicine Invites Malpractice Suits

After reading the article on MinnesotaCare in the November issue of *Minnesota Medicine* ("MnCare Will Likely Face Legal Hurdles," page 33), I am concerned about the protection against malpractice a physician will have if he or she does everything established in practice parameters developed by appointed bureaucrats.

In essence, if the doctor does not follow these parameters, he or she will be suspected of malpractice and more susceptible to a lawsuit. A bureaucratic cookbook on how to practice medicine with its guidelines and practice parameters leaves no room for the physician to use good judgment in providing personal quality health care to patients and is detrimental to all care givers and their patients.

Practice parameters and guidelines have a way of becoming law, thus further cannibalizing the practice of medicine and inviting malpractice suits—besides, why do we have medical schools and continuing medical education?

One last contribution to physicians and politicians: Finding an appropriate name for the original HealthRight bill was a real problem. I offer this unusual and appropriate name, "PolitiCare"—no trademarks, copyrights, or finder's fee involved.

George W. Schossow, M.D.
Family physician
Robbinsdale, Minnesota

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National Health Care Reform Tops AMA Agenda

Minnesota Medicine interviews William E. Jacott, M.D.

The debate over health care reform has intensified in recent years, and the AMA responded in 1990 by introducing Health Access America, a plan for expanding health care access and controlling costs. The AMA has been promoting its plan throughout the nation, focusing on Congressional leaders in Washington, state medical societies, and other groups across the country, and many aspects of the plan are incorporated into reform proposals now on the table, says AMA Trustee William Jacott, M.D., in the following interview.

Health Access America has four basic goals: expand health care coverage to all Americans, control rising costs, foster continued excellence in the quality of health care services, and ensure individual freedom of choice to select the type of insurance coverage and health care received.

To expand access, the plan would require employers to provide health care coverage to employees and government to expand medical assistance programs, specifically Medicaid. The plan also proposes insurance reforms, such as requiring community rating and eliminating preexisting condition limitations. To control costs, it includes market-based reforms and suggests reducing excessive paperwork, enacting major liability reforms, and requiring providers to release price information to patients before treatment. The AMA believes that such cost-control methods are preferable to regulatory mechanisms that might foster government price regulation, inefficiencies, and rationing.

Dr. Jacott is assistant vice president for Health Sciences at the University of Minnesota and an associate professor of family practice at the University of Minnesota Medical School. Last June, he was re-elected to his second three-year term on the AMA Board of Trustees and was elected the board's secretary/treasurer. In the following interview, he discusses changes the AMA board made to Health Access America at the AMA interim meeting in December.

To receive a copy of the Health Access America Progress Report, call 800/AMA-3211.

William E. Jacott, M.D.

"Minnesota is way out in front in terms of health care system reform."

Minnesota Medicine: The American Medical Association introduced Health Access America in February 1990. How much influence has that plan had on national reform efforts?

Jacott: It has significantly influenced the whole debate on health care system reform. When we introduced the plan almost three years ago, we determined that health care system reform was a very complex and comprehensive process that cannot be approached in piecemeal fashion. We have presented our plan to government, labor, business, the public, the profession, and a variety of other interests. Now, as we look at how system reform is shaping up for 1993, we are pleased that much of what we presented in Health Access America is being incorporated into that reform.

Finding a Unified Voice

Minnesota Medicine: At the AMA House of Delegates meeting in December, Dr. James S. Todd, AMA executive vice president, addressed the delegates about the importance of physicians finding a unified voice on health care reform. What is the significance of this message?

Jacott: Unity in medicine is critical. Without a singular voice, the powers that would like to manipulate us like pawns in a chess game can do it—the divide and conquer approach. What Dr. Todd, and also Dr. John L. Clowe, AMA president, were saying at our interim meeting is that we must be unified. We need to get all components of medicine together, including the American Hospital Association, the specialty societies, and the various other interests within the House of Medicine. We must reach consensus on the important principles for health care system reform.

Minnesota Medicine: Do you think organized medicine at the state level has been in accord with Health Access America, or have states gone their own way?

Jacott: Actually, most state associations have endorsed

Health Access America. Only a handful have not; some have endorsed it in principle or have taken exception to just a few points, but basically we have support from the state associations. Where we don't necessarily have consensus is with some of our specialty societies and some other organizations, such as the American Hospital Association. We have spent considerable time meeting with key organizations and discussing our differences. We have not yet reached absolute consensus, but we are closer than ever before.

Giving Health Access America a Tune Up

Minnesota Medicine: At the December AMA meeting, the Board of Trustees introduced changes to Health Access America. What kind of changes were made?

Jacott: We essentially gave Health Access America a tune up to bring it up to speed as we move into 1993. The report recommended changes related to patient responsibility, innovative insurance underwriting, administrative costs and paperwork, affordability, and continuity of coverage.

Minnesota Medicine: The report suggests requiring all U.S. residents to have defined health insurance. Is the AMA solidly behind mandatory health insurance?

Jacott: Yes. We feel all Americans should have defined health care coverage, and the coverage should include care by a physician. We included this in the report, and the House of Delegates supported it. We feel it's an important part of our comprehensive approach to system reform.

Minnesota Medicine: The report also discusses providing states with expertise on individual health insurance options. Is this new—providing states with assistance?

Jacott: Yes, that's new. We established that initiative at our September board meeting. More progress in health care system reform has occurred at the state level than at the federal level, so we established a section within the AMA that is designed to help state associations with reform in their own states. The section is called the State Health Reform Action Group (SHRAG) and includes AMA staff from State Legislation, the Council on Legislation, Health Policy, and the Office of General Counsel. We feel it's important that we make ourselves available for testimony, legal help, advice on policy, staff support—whatever it may be. This is important because any significant changes to health care delivery in the next year or so will probably be made at the state level.

Minnesota Medicine: Tell us about the board's recommendation to create a National Health Advisory Board.

Jacott: The AMA Board of Trustees recommended an advisory body because most federal health care reform proposals have called for a national board of some sort that will monitor or develop policy with regard to health care—very similar to the Minnesota Health Care Commission. Whether you call it a board, commission, task force, or advisory body, we need to outline our vision for such a group because it is a major factor in most of the proposed health care system reform plans. You will notice we said "advisory" body, with clear delineation of responsibilities. We recommend the formation of a public/private partnership with the AMA to formulate policy and implement activities in areas of health policy, such as technology use and dispersion, benefit packages, practice parameters, and quality. We do not support an advisory body that sets global budgets, expenditure targets, or payment determination.

Minnesota Medicine: The House of Delegates gave the Board of Trustees broad authority to act on behalf of the profession during health system reform negotiations, "guided but unhampered by specific current policy." There was divided testimony, but in the end the House of Delegates finally approved the measure. What's your reaction to this?

Jacott: This amendment originated in the House of Delegates. It was not part of our original report, but we are pleased that the house has the confidence to allow us to act on the association's behalf. We must have the ability to move fast and to negotiate on behalf of the profession. We humbly accept this important responsibility and pledge to do what is in the best interest of our patients.

Reforming the National Health Care System

Minnesota Medicine: President Clinton's election campaign mentioned a great deal about health care reform. Has the AMA gotten a sense of what may be in store?

Jacott: We have been in close contact with President Clinton's health care transition team, but the details remain uncertain. We do believe that he is going to introduce health care system reform legislation in his first 100 days. The big question is whether Congress can reach consensus and end the gridlock over proactive reform.

President Clinton has said he wants to support some form of managed competition. His definition of managed competition is a moving target and differs from ours since it includes global budgeting. A good share of other details he has proposed are consistent with the AMA's Health Access America.

Minnesota Medicine: Certain health care reform phrases seem to put physicians on the edge of their chairs. You mentioned one—global budgeting. Expenditure targets and payment determinants are two others. Can you briefly comment on each of these and explain why they bother those of us in organized medicine?

Jacott: Whether you call it a global budget, expenditure target, or an expenditure cap, you are really saying the same thing—that you are setting a fixed amount of money the government will allow to be spent on health care for the American people. We have great concerns about that, and at the December meeting we reaffirmed our opposition to global budgeting. We feel it's unworkable; no one has decided how to implement it. What happens when we run out of money and are still in our fiscal year? Do we start to ration? Or do we carry over into the next year's budget and add to the whole deficit problem? Price control is another concept we strongly oppose. With price control, government would actually set physicians' fees. We already see examples of this in Medicare and Medicaid.

Minnesota Medicine: Do you think the national health reform efforts are going to affect MinnesotaCare, our own landmark bill for health care reform?

Jacott: Minnesota clearly is way out in front of the rest of the nation in terms of health care system reform. To watch how state and federal regulation interrelate will be most interesting. I think in some cases, federal law will supersede state, and in other situations, state law will supersede federal. Some of the first battles will most likely involve ERISA—the Employee Retirement Income Security Act.

Minnesota Medicine: As appealing as Hawaii's health plan is, Hawaii managed to establish its program before ERISA. Now, states are finding their reform plans stymied by ERISA provisions. Is it just a matter of time before states are granted the necessary waivers to overcome this obstacle?

Jacott: I think this particular area will be examined very closely. Participants in ERISA have strong feelings about the subject—after all, when you start messing around with a federal retirement plan, you get a lot of people upset. I'm not sure how smoothly the process will go, but many states are planning to apply for ERISA exemptions.

Minnesota Medicine: Is organized medicine in a good position to help direct health care system reform here in Minnesota and nationally?

Jacott: The AMA is positioning itself to be in the forefront of the debate for health care system reform, and part of that process involves each of the state associations and the specialty societies. Physicians have sought, and will join in bringing about, substantial change in the system if that change includes true regulatory reform. The AMA proposes this change on behalf of the entire profession. There is universal agreement on the need for negotiations between the government and the medical profession. The AMA has already established a number of coalitions involving the major players in dealing with these important issues. We must enhance this momentum and keep our profession involved on behalf of our patients. The AMA has effectively established the fundamental policy for our involvement.

We can be proud of our Minnesota physicians in the MMA's delegation to the AMA. They are dedicated, articulate, knowledgeable, effective, and are becoming well known at the national level. MM

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The Favor

S. Horatio Slawson, M.D.

Charlie was in charge of making ice and running the Zamboni, and he was always at the ice arena when I took my daughter skating. He was about 55 and when he walked, he rolled up on his toes and shifted all his weight from side to side as if he were skating, just the way old hockey players walk. He had a shock of yellow hair, and he always wore two sweatshirts that hung loosely around his thin shoulders. After he'd resurface the ice for the 5:30 a.m. session, and my daughter began to practice her figures, he and I would stand along the boards and talk. We watched her slowly trace circles on the ice with her blade edge, attempting to inscribe perfect circles or circles within circles and loops. Then she'd stand aside and look critically at the lines she'd made, or her coach would come over and point to the lines upon the ice where the curve was flattened or her foot had wobbled. An hour later, she switched to freestyle and would warm up by speeding around the ice clockwise; on the curves, her left leg would scoot underneath her right, and she'd make a gliding, swooshing sound as she pushed against the blade edge.

Illustration by Kristina Swarner

"Running on water is what I call it, Doc," Charlie would say. He'd slap me gently on the shoulder and continue, "Of course, I freeze the water up just a bit to make it easier."

He'd laugh and sometimes this would precipitate a cough, and he'd pull out a handkerchief and dab at his lips. We'd also talk at the public sessions when he was skating monitor. In these two-hour sessions, kids of all shapes and sizes would circle and dart across the ice, some practicing their hockey moves with rapid starts and stops or skating on one leg in looping turns around the corners. In the center of the ice, young girls with tight braids and nylon leggings would make spins or perform jumps, landing with their arms outstretched and fingertips upturned toward the rafters.

"Kids nowadays," he'd say. "They don't know how to skate. When I was young, we were skating before we could walk. Most of the time before we could crawl. Of course, I was one of the lucky ones; I could skate before I was weaned."

At mid-session, he'd blow the whistle and motion all the children off the ice. Then he'd open the giant gates at one end and turn the key to start the Zamboni. He'd pull the majestic machine out on the ice and make wide sweeping turns while the machine simultaneously scraped off a tiny surface layer of old ice and swathed down a new coating of precisely heated water. Earlier in the day, he'd inspected all the ice for ruts and filled them in with packed ice chips. He knew where each one was and so he'd lean away from his seat atop the machine and inspect the ice for smoothness and irregularity. When he was done, he'd pull the machine back into its storage shed and walk out on the ice in his tennis shoes, skidding the rubber sole along the ice to test again for friction or bumps. After waiting five minutes, the kids would tear out on the ice, anxious to be the first on the perfect surface.

One day, Charlie's cough was worse. As he wiped his mouth, spots of blood appeared upon his handkerchief.

"Charlie, you really should have that cough checked out," I said.

"Now, how would a guy go about doing that?" he asked.

"I think you should have a chest x-ray."

He shook his head. "No sir, you'll never get me near a hospital."

"Forget the hospital," I said. "Come on over to the doctors clinic and we'll get a chest x-ray there."

"What do you think I got, Doc, pneumonia?"

"Maybe," I answered. "Charlie, you just come on in and we'll get a chest film. I'll pay the bill myself. Consider it a favor, my treat."

A month later he came in. My nurse ushered him into the office and we sat down at the view box to review the films. I showed him the large mass in his left lung near the left main stem bronchus. The room was suddenly very quiet.

"Is it cancer, Doc?" he asked.

I looked away for a moment before I replied.

"Yes, Charlie, I think it's cancer."

I reviewed the options as best I could and told him that I thought a chest CT would be the next best step, and possibly placement of a needle into the mass to gather some tissue for a full diagnosis. I told him I wanted to seek the opinion of a thoracic surgeon whom I knew. He nodded.

"And one more thing, Charlie," I said. "You should quit your smoking."

"Oh, really?" he said laughing. "And if I do, how many extra years will that give me?"

The next week the results of the CT were back. The mass was solid and measured about 6 cm with a necrotic center. It had compressed a segmental bronchus, causing distal atelectasis, and was perched precariously near a large pulmonary segmental artery. There was mediastinal lymphadenopathy and liver metastases. With the CT films in hand, I visited a thoracic surgeon in our practice group. He reviewed the scan quickly and methodically, then read the radiologist's report.

"Bronchogenic carcinoma. We'll need tissue to be sure," he said.

The results of the bronchoscopic and hepatic needle biopsies were positive for carcinoma of the lung. Charlie then developed a pneumothorax and was hospitalized for three days. Two days later he showed up in the ER, his left leg swollen to twice its normal size. The ultrasound exam demonstrated thrombus in the common femoral vein.

Later, he began the first of his series of chemotherapy and radiation treatments. Each week I saw him at the ice arena he looked more gaunt, and he now wore a large baseball cap to cover up his few remaining patches of hair.

"The only thing Doc," he said, "is I can't smell the ice as well."

"What does that mean, Charlie?" I asked.

"Well, when I'm running the Zamboni and getting the solution ready to resurface the ice, I heat the water up to a certain point and I know it's right because I can feel it between my fingers, and the steam that comes right off has a smell that's just right."

"You're kidding," I said.

He placed his right hand on his chest in an attitude of mock seriousness. "I swear to God, I swear to God."

Several weeks later I received a call from the oncologist who had been treating Charlie. He told me that Charlie had not been coming for his treatments and had not answered several calls to his home. He said he'd taken a special interest in the case because he'd seen Charlie play.

"Play what?" I asked.

"Hockey. I watched him play when I was a kid and he was on the team up at the 'U.' That must have been in the late '40s or maybe the early '50s. He was the fastest kid on skates they'd ever seen up there. Came from some small town up on the Canadian border, a town of 3,000 or so. Later in the season there was something about a scandal, I forget all the details, something to do with outside money for skates, equipment, and tickets. Even at his best, he never was much of a student, and then it also hit the papers that he never graduated from high school. After that, I never heard about him. But you'd forget about all that if you watched him skate. Boy, oh boy, he could make that ice sing."

I called up Charlie, but he was adamant. He refused all further treatments. He said he wasn't in any pain, and he thanked me for all that I had done. "But that was some favor you did me, Doc. Up until you got a hold of me, I felt pretty good."

A month later, he died in his sleep, at home. The tumor had eroded into the large segmental artery and caused a quick, internal exsanguination.

Three weeks later, I sat by the side of the rink, sipping coffee, watching my daughter and the other skaters glide around the ice, listening to the blades skim across the surface. The new ice attendant was efficient and brought the Zamboni out at all the scheduled times and made the programmed circles with the machine just like I'd always seen it done. He was tall and young and strong. The kids said he was a doctor's son who was home from college just for the summer. He wore a red nylon jacket that was tapered down to the waist, with black-cuffed sleeves.

"Dad, can we go now?"

Surprised, I looked at my watch.

"The session's only half over. Don't you want to skate the rest?" I asked.

"Something's wrong with the ice," she said. "It's rough and sticky, not like it used to be."

She looked at me strangely because I was grinning from ear-to-ear, staring at the ceiling and listening to unchecked laughter from the rafters of heaven. **MM**

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COVER STORY

CINDY LINDGREN

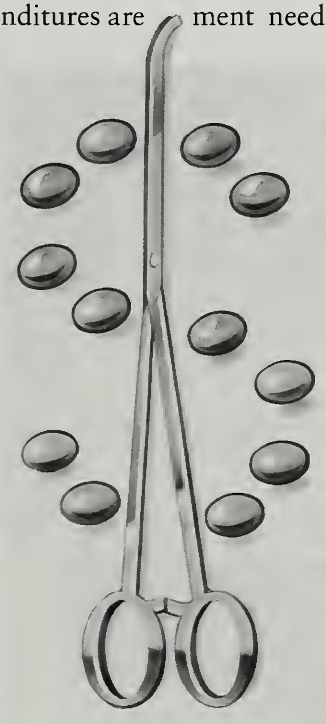
State 'Laboratories' Test Health Care Reform Solutions

by Barbara A. Elliott, Ph.D.

Widely recognized by the states as a pressing policy issue, health care reform appears to have moved up on the national policy agenda as well. President Clinton has promised to address the issue during his first 100 days in office. Previously, however, the federal government has been deadlocked on health care reform, leaving the states to become the laboratories for developing and testing proposed solutions to our health care crisis. By passing MinnesotaCare in last year's legislative session, Minnesota joined the growing number of states attempting to provide access to affordable, quality health care to their citizens.

Burgeoning health care costs have precipitated moral, political, and economic crises for many states—a moral crisis because large (and increasing) numbers of people are without insurance and do not have access to care; a political crisis because these uninsured include more of the middle class who are politically active and who vote; and an economic crisis because the states can no longer afford to pay for state employees' health care premiums, for mandated care, and for their portion of medical assistance programs.

The numbers alone make clear the need for health care reform. In 27 of the 30 years from 1960 to 1990, health care spending grew faster than the gross national product.[1] The number of uninsured rose sharply through the 1980s and has been climbing steadily over the past three years as well,[2] with an estimated 37 million people now uninsured. In 1989, health care spending in the United States averaged 40 percent more per person than in Canada, 90 percent more than in Germany, and twice as much as in Japan.[3] Total health care expenditures are projected to reach 17 percent of the gross national product by the year 2000 and 37 percent of the GNP by 2030.[4] Consensus is building at all levels of government that something must be done to halt these trends. This article reviews attempts by a number of states to legislate health care system reform.



Access, Quality, Affordability

The goal of health care reform is to achieve access to quality care at an affordable cost. State legislation addresses these goals—although few states have yet passed, let alone implemented, their reform packages. The possibilities for achieving reform at the state level are complex but limited.[5,6] Examining the goals of health care reform helps to clarify the various states' proposals.

Access

In most cases, access to health care is now limited by a patient's ability to pay. However, geographic, language, transportation, and cultural barriers can also limit access to care. Most state legislation is designed to improve access for the uninsured and underinsured. Some state proposals for reform, like those in Minnesota and Florida, are designed to provide access to health care for those "in the gap" between public programs and private insurance. In contrast, Colorado's and Vermont's reform proposals cover the health needs of all their citizens.

Quality

Quality is a universally understood term that needs further medical and political definition. It is the assumption of "quality care" that confounds the financial planners of reform. State proposals have addressed this issue by specifying how a new system will deliver care to its citizens. Some states are proposing to expand existing programs; for example, Oregon has proposed increasing the number of its citizens eligible to receive Medicaid services, while other states have been developing new programs using the health insurance and managed care models. Under such models, health insurance coverage can be mandatory (as proposed in Massachusetts) or voluntary (as legislated in both Florida and Minnesota). Some states have attempted to define quality further by specifying which procedures can be reimbursed. In some states, the procedures are clearly delineated, as in Oregon, while in others, they are more generally defined, as in Florida. Attempts to define quality care have raised difficult questions about what a benefits package should cover, with acute care, long-term care, preventive care, and mental health benefits all under discussion.

Affordability

Providing affordable care is another goal of health care reform. The financing of reform (and the cost containment needed to maintain affordability) is the most difficult step in state legislation. Proposals for financing state health care plans range from a single designated payer who handles all financial aspects of health care (similar to the Canadian model and that proposed in Colorado) to the addition of another payer (as may finally develop in Minnesota). Cost-containment efforts are also very broad based, ranging from the centralized state planning agencies and increased regulation proposed in Vermont, to the use of market-driven reforms that encourage the use of managed care strategies, reduced medical malpractice, and practice parameters legislated in Massachusetts.

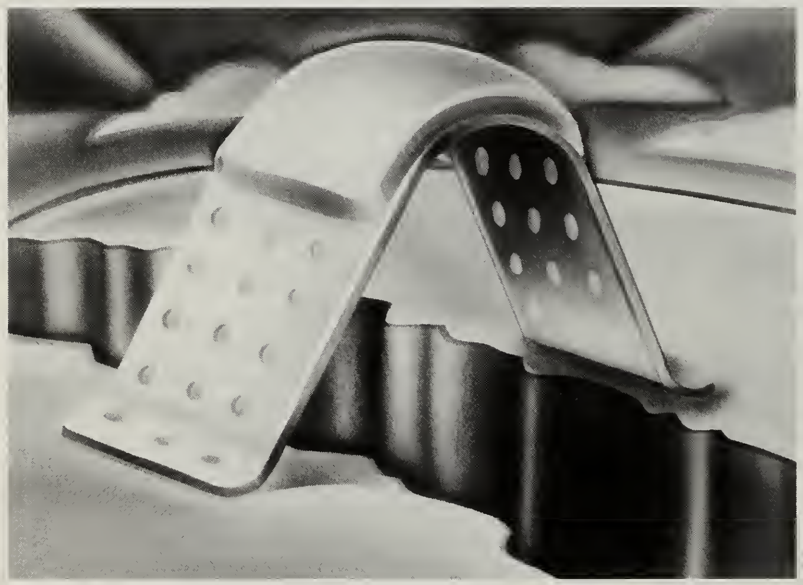
States have also focused their cost-control efforts on finding alternative ways to pay for uncompensated care. Currently, most health care providers find ways to make up for uncompensated care costs from other charges. Some states, such as New Jersey, are developing creative ways to apply Medicaid matching money toward the costs of uncompensated care.

Medicaid and ERISA waivers

Further limiting states' options for designing health care reform are two federal laws, Medicaid and the Employee Retirement Income Security Act (ERISA), which determine how monies can be budgeted for health care at the state level.[7-9] Many of the states' reform initiatives are dependent on waivers from these two laws. The federal Medicaid law, passed in 1965, mandates federal and state cooperation to provide for the health and welfare of the old and poor in each state. The 1965 law established Medicare, Aid for Families with Dependent Children, and Medicaid using state and federal financial support. Each state implements these programs to meet the health and welfare needs of these populations. To provide additional or different programming from what is mandated by the Medicaid law and by the policy that has evolved since 1965, states must obtain a waiver from the Department of Health and Human Services (HHS).

The importance of this seemingly simple process became obvious this summer in Oregon, which had proposed a widely publicized and heavily debated "rationing" approach to health care reform. (The plan called for rank ordering Medicaid-covered medical procedures and funding them down the list until the money was gone.) Because the proposal would have changed the way federal and state monies are used to serve Medicaid recipients, the state needed and applied for a Medicaid waiver. HHS rejected the request, concluding that the rationing proposal conflicted with the Americans with Disabilities Act passed in 1990 and implemented July 1, 1992.

The ERISA law of 1974 is the other federal law that limits the financing of state health care reform. The law exempts employee welfare benefit plans from state regulation. The implication of this law for health care reform is that state governments cannot require employers who self-insure to participate in state health care programming. In other words, these employers and the money they have available for their employees' health care are exempt from any reform in the financing or delivery of health care within their states. This makes inclusive "play-or-pay" proposals impossible. ("Play-or-pay" refers to programs in which employers provide health insurance for their employees or else pay into state coffers, which fund the insurance.) Because 65 percent of all insured U.S. workers are employed by self-insured companies, this particular law severely restricts the financial reform aspects of many state proposals, and several of the states that have legislated reform will need ERISA waivers in order to fully implement their programs. In fact, the exemptions provided by this law are interfering with the MinnesotaCare program. The Twin Cities Pipe Trades Welfare Trust, a self-insured union health plan, is suing the state, alleging that MinnesotaCare violates federal labor law and ERISA. The pipefitters claim that the law's 2 percent tax on providers (established to help finance the plan) would be passed on to them and other self-insured benefit plans in violation of ERISA and the Taft-Hartley Trust Act.



Sen. Patrick Leahy, D-Vermont, and Gov. Lawton Chiles, D-Florida, are among a number of policymakers working to make ERISA waivers available for state health care reform efforts. However, attempts to weaken ERISA are likely to meet with strong resistance from an unusual combination of business and labor lobbies that have united to oppose such efforts.

State Reform Efforts

Despite the Medicaid and ERISA restrictions, several states are forging ahead with their health care reform experiments. Following is a summary of some of the state efforts made through their 1992 legislative sessions.[9-12] The summary reviews what each state has achieved and discusses 1) whether the reform has been implemented, legislated, or only proposed; 2) who is covered by the reform; 3) how the state plans to structure its reform; 4) how the reform will be financed and whether it includes cost-containment efforts; and 5) what types of waivers will be needed to implement the program.

Hawaii

Status: Hawaii has already reformed its health care system, and 93 percent of its population has health care coverage—the highest rate in the nation. Hawaii passed its original mandatory coverage provision in 1974 and has since fully implemented the plan. In 1988, it passed the State Health Insurance Program (SHIP). That program, implemented in 1990, provides coverage for some of the people left "in the gap" by the 1974 legislation.

Coverage: The 1974 law covers all workers spending 20 or more hours on the job each week. Because this mandatory coverage does not apply to dependents (although many employers offer that coverage) or the unemployed, SHIP was enacted. State residents living at or below 300 percent of the poverty level now receive coverage or qualify to buy subsidized insurance through SHIP.

Structure: Hawaii's program, which stresses preventive and primary care services, includes a mandated play-or-pay program combined with general revenues that support the regular health insurance and HMO delivery systems.

Financing: The mandated play-or-pay program requires employers to purchase insurance for employees. SHIP is funded through general revenue (income) taxes. Cost containment is primarily accomplished through two mechanisms. First, insurers are required to use community ratings. Second, there are only two payers for health care (Blue Cross/Blue Shield and Kaiser Permanente) on the island, which keeps administrative costs down.

Waivers: Timing was on Hawaii's side; the ERISA waiver Hawaii needed to implement its 1974 law was granted because the state reform legislation was passed the same year ERISA was enacted. The waiver was granted in 1982. However, a second ERISA waiver was not granted for SHIP, which depends on a general revenue tax to cover costs.

Oregon

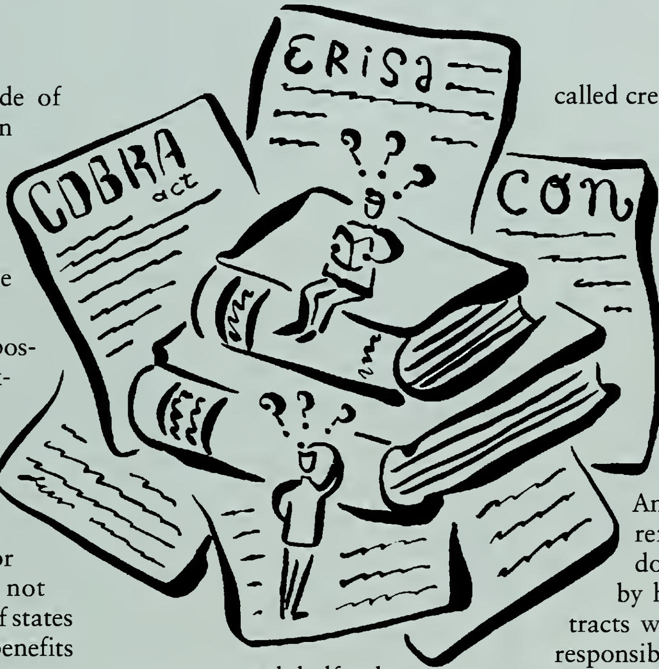
Status: Oregon's health care reform plan won approval from the state Legislature but has not yet been implemented.

Coverage: Oregon's plan would provide work-based insurance coverage for employees and extended state services to people at or below the poverty line.

Structure: The plan—a voluntary employer program with built-in tax incentives—has many dimensions. If this program is not successful, a mandated play-or-pay program will be implemented. Under Oregon's rationing proposal (described previously), the number of people

Insider's Guide to Health Reform Jargon

Health reform has its own jargon, known only to the few. But you, too, can be one of the few, just by reading this handy guide to the language of health reform. Here's the lowdown on what the politicians are saying, and what they really mean by what they say.



ADVERSE SELECTION: The flip side of Darwinism. Fierce competition for healthiest individuals leaves Blues and other insurers with an increasingly sicker pool of enrollees.

ALL-PAYER SYSTEM: All insurers use same payment schedule.

BARE-BONES HEALTH PLANS: No posterior implants, inner-child workshops included in these no-frills, low-cost policies. Many include only several days of hospitalization. All have huge deductibles, copayments, and low policy limits. Geared mainly for small businesses, who have not rushed to buy them. Over half of states have waived mandated health benefits to allow sales of these plans.

BLACKLISTING: Refusal by insurers to cover high-risk individuals, especially those who could inherit diseases, and high-risk industries and professionals. The latter is also called redlining, industry screening.

COLLABORATIVE CARE: Clinton euphemism for managed care. His pre-election plan called for more of it. (Bush euphemism was coordinated care.)

CANADIAN-STYLE SYSTEM: Commonly, a single-payer system, nationalized health care, or socialized medicine. But Canada's system is none of these. It's national health insurance and 12 separate, single-payer systems with global budgets. Doctors are mainly self-employed, reimbursed under a negotiated fee schedule. Hospitals are about half government-owned, half publicly held nonprofits, reimbursed in set lump sums. Provinces approve technology and facility investments. Patients choose their own doctors.

CARVING OUT: Questionable and sometimes illegal insurer practice. Healthy individuals in small-employer groups buy group coverage, while sicker coworkers can only get expensive high-risk pool coverage.

CON: Certificate of need. Mandatory state approval for expensive medical equipment purchases or hospital construction. Big in the '70s, CONs are back in vogue.

CHERRY-PICKING: Selling policies only to people who don't need medical care and dropping them once they do. Insurers say they have no choice. Also called cream skimming.

COBRA: Consolidated Omnibus Budget Reconciliation Act of 1985. Entitles ex-employees of companies with 20 or more workers to continued coverage under the group plan for 18 months after leaving. Small companies are fighting the act.

COMMUNITY CARE NETWORKS: Centerpiece of American Hospital Association reform plan. Local groups of doctors and clinics, organized by hospitals, compete for contracts with group insurers and are responsible for providing care to enrolled individuals. Typically they're reimbursed on a capitated basis. Payment schedule set by an independent regulatory board.

COMMUNITY RATING: Insurers once charged all businesses the same average rate within an area, regardless of size and medical history. Risk was spread across the entire community, so the healthy subsidized the unhealthy. New York recently mandated all insurers use this risk-rating system. Blues plans say they're losing out because most still community rate. See experience rating.

CONSUMER CHOICE: Gives consumers opportunity, incentive to shop around for insurance. Everyone gets a tax credit for buying insurance, which is

Continued on page 18

qualifying for Medicaid services was to be expanded by limiting the services that would be covered. The medical services ranking listed 709 procedures, 587 of which could be reimbursed for the qualifying population in managed care settings.

Financing: The employer portion of the plan has tax-incentive financing. The public plan and managed care portions (which were also cost-containment strategies) were to be financed by a reallocation of Medicaid funds.

Waivers: To carry out the play-or-pay portion of the plan, Oregon will need an ERISA waiver. The required Medicaid waiver has already been denied, as discussed earlier. Oregon now needs to reconsider these obstacles to financing its plan and is expected to take legislative action and reapply for waivers.

MASSACHUSETTS

Status: In 1988 Massachusetts passed MassCare, but most of it has not been implemented because of the state's current financial crisis. In fact, there is consider-

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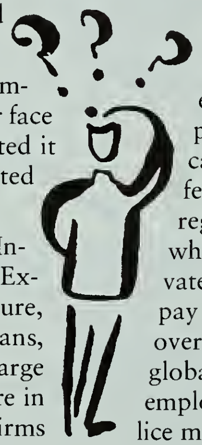
mandatory. No tax break for companies that provide insurance. The poor get a tax refund. Modeled after Federal Employee Health Benefits Program, pushed by conservative Heritage Foundation. Also called market-based approach.

COST SHIFTING: Hidden tax for uncompensated care. Private insurance premiums pay for the cost of treating the poor. Primary method of paying for indigent care in the United States, and some say primary cause of health insurance inflation. Now that employers are balking, the tactic is failing, along with inner-city hospitals.

DIVIDE AND DUMP: Separating low-risk from high-risk workers and dumping the latter.

EMPLOYER MANDATE: Requires employers to provide coverage or face stiff penalties. Nixon advocated it in the '70s. Hawaii implemented it in 1974.

ERISA: Employee Retirement Income Security Act of 1974. Exempts companies that self-insure, or fund their own insurance plans, from state regulations. Most large companies began to self-insure in the '80s. Now, 70 percent of firms with 5,000 or more workers do it. Only Hawaii has an ERISA waiver, allowing it to regulate such plans. The act is a major roadblock to state health reform, since it means states can't require the largest companies to provide insurance, pay premium taxes, or cover mandated benefits.



EXPERIENCE RATING: Commercial insurer system for determining risk, setting premiums. Now under fire. Rates are determined by the cost of group's medical claims. Groups with the sickest workers get the biggest rate increases. Many are eventually dropped. May encourage employers to discriminate in hiring against people who were or are sick. Insurers say they have no choice.

GUARANTY FUND: Pool covering benefits of insolvent insurers, designed to protect providers, consumers. All insurers are assessed to fund it. Only two states lack one, but less than half require the Blues to join. 1991 collapse of West Virginia Blues plan, leaving providers with the tab, highlighted the problem.

GERMAN-STYLE SYSTEM: Regulated multipayer system. In Germany, about 1,200 nonprofit insurance plans—*Krankenkasse* or "sickness funds"—are organized by employers, labor unions, and professional groups. They're funded by equal payroll taxes on employers and employees. Self-employed and wealthier workers can buy private insurance, but few do. Money is turned over to regional networks of doctors, who reimburse physicians in private practice, and to hospitals, who pay staff physicians. Government oversees fee negotiations that set global budget and cover poor, unemployed. Physician networks police members' utilization.

GLOBAL BUDGET: State or national cap on total health care expenditures. Designed to force providers, patients, and payers to cut costs, make hard choices. Under American College of Physicians proposal, a national commission recommends budget to Congress, covering public and private spending and capital outlays. AMA opposes but central to Democrat proposals.

HIGH-RISK POOL: Social program or insurance plan? The debate continues. Interpretation affects financing, coverage, and eligibility. More than half the states have these pools, offering coverage to individuals and small groups denied coverage or whose medical record makes rates out of reach. Insurers typically assessed to cover deficits.

JOB LOCK: Staying in that job out of fear of losing health insurance coverage. Preexisting condition waiting periods, high rates, and outright denials plague individuals applying for new policies. Represents a major hidden cost of the current system.

MANAGED CARE: Purists may disagree, but it doesn't just mean HMOs. Most say term also applies to indemnity insurers with utilization review. Basically uses financial incentives to persuade providers not to order unnecessary services, patients to use providers in the system, and the organization to keep patients as healthy as possible.

MANAGED COMPETITION: Any regulated free-market approach. Countless variations, with many proposals claiming to offer it. Actually calls for individuals to buy health insurance as part of large groups, organized by sponsors. At least one of the sponsor's plans would offer free, basic coverage. Generally funded by payroll tax on employers, employees. Insurers would get a fixed fee for each enrollee.

MANDATORY ASSIGNMENT: Requires physicians to accept Medicare reimbursement as payment in full. (No balance billing.)

MEDICAID BUY-IN: Allows the uninsured to enroll in Medicaid by paying premiums on a sliding scale. AMA favors. Others say it's doomed to fail; no one wants to fund programs stigmatized as "welfare."

MEDICAL IRAs: Put off that angioplasable sentiment to completely repeal the legislation.

Coverage: The program is designed to provide universal coverage for all Massachusetts residents.

Structure: Employers were to participate in a statewide play-or-pay program that would assure insurance for those who work. The unemployed and others without insurance were to be covered through expanded Medicaid and managed care programs, plus subsidized insurance programs. Health insurance and medical malpractice reforms were also part of the structural changes in the law.

Financing: Financing has stalled implementation of the Massachusetts program. Employers are successfully contesting the play-or-pay program, which was to have been implemented in 1992 but is now scheduled to begin in 1995, if at all. The programs for the uninsured have not all been funded by the Legislature, although, because of policy changes, 100,000 more citizens now qualify for insurance. The malpractice reform has been enacted, with an imposed cap of $500,000 on compensation for

ty, get a trip to Disney World. The money employers and employees spend on health benefits is set aside in tax-free employee accounts. At year-end, workers might be allowed to withdraw unused money or earn vacation days. Also called medical savings accounts.

MEDICAL UNDERWRITING: Euphemism for deciding who needs coverage, then denying it. Using health status of individuals and groups to determine rates, whether to provide coverage, and under what conditions.

MULTIPAYER SYSTEM: Like the German system. Multiple payers, typically a private-public mix, reimburse providers. Vermont is studying multipayer plan using existing insurers, with a state or quasi-state agency regulating costs and insurance fees.

NATIONAL HEALTH CARE: Government finances and delivers health care. But often a synonym for Canadian-style system (although the Canadian government does not deliver care).

NATIONAL HEALTH SERVICE: Government not only finances health care but also delivers it. Typically owns the hospitals and puts doctors on salary. Also nationalized health care. Sweden and the United Kingdom, for example.

NATIONAL HEALTH INSURANCE: Government-paid health insurance for all. Different from nationalized health insurance, which is government as single payer.

NEGOTIATED FEE SCHEDULE: Fees set through collective bargaining. Usually used to help determine global budget. AMA wants the FTC to let organized medicine represent doctors in such negotiations. Also called negotiated payment schedule.

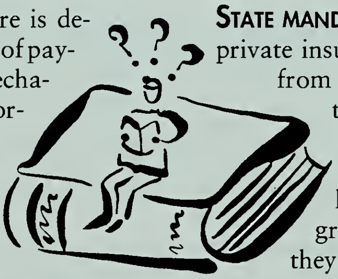
OPEN ENROLLMENT: Insurers take all comers, regardless of medical history or occupation. Blues plans in at least 13 states have it. Also mandated for all insurers by Vermont, New York.

PLAY-OR-ELSE: See employer mandate.

PLAY-OR-PAY: Employers pay for health care or pay a tax. Money goes to public plan for the working uninsured and underemployed poor. Opponents say it's a poorly masked maneuver to get a single-payer system—employers would find it cheaper to pay the tax. Highly touted Massachusetts plan was supposed to start in 1992, but poor economy set date back to 1995. Favored by many Democratic leaders.

PLURALISTIC SYSTEM: Care is delivered through variety of payment and delivery mechanisms, including fee-for-service, HMOs. Also means a mix of public and private insurance.

PORTABILITY: You don't lose car insurance when you change jobs, proponents say. Why should you lose health insurance? Proposal allows workers to keep the same insurance policy when they change or lose a job.



LAURA STANKE

PREDATORY PRICING: "Cherry-Picking Techniques: The Sequel." Giving low-risk small groups and individuals a good price deal on health insurance, then raising rates as soon as they start filing claims. Also called price churning or churning the books.

REINSURANCE POOL: Common fund to help insurers mitigate expected high losses from insuring high-risk groups and individuals. Only a handful of states have adopted these pools.

SINGLE-PAYER PLAN: Single entity, usually government-run, reimburses all medical claims. Consumers typically pay a uniform tax rather than premiums. Money goes to a single health care trust fund, used only for health care expenditures.

SMALL-EMPLOYER POOL: Private or state-run organization of small employers, all joining to obtain insurance.

SMALL-GROUP REFORM: Regulations for insurers selling policies to small businesses (usually 25 or fewer but sometimes as many as 100 workers) with goal of making insurance available and affordable. Most common type of state reform. Politically popular as no taxes are required. Blocks cherry-picking, predatory pricing, medical underwriting, and other practices.

STATE MANDATE: State laws requiring private insurers to cover everything from well-baby care to hair transplants and herbal medicine. More than 900 of these and multiplying like rabbits. Bane of small group employers, who say they can't afford the added expense. ERISA exempts self-insured companies.

UNIFIED HEALTH CARE SYSTEM: Includes health insurance, workers' compensation, and health-related auto insurance under one rubric. Advocates say it will cut administrative costs. Sweetener for business to win support for universal system.

UNIVERSAL COVERAGE: Holy Grail of U.S. health care reform. Hopefully not as elusive. All 37 million uninsured Americans would finally have insurance.

WAIVER: Permission to circumvent Medicaid, Medicare, and ERISA rules, vital to comprehensive health reform. HCFA recently thwarted Oregon's so-called rationing plan by refusing to grant Medicaid waivers.

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pain and suffering and limits on attorneys' fees. These changes have lowered insurance premiums and helped contain costs. Other health insurance reforms and managed care options to contain costs have not been implemented.

Waivers: If the mandated play-or-pay portion of the law is put in place, an ERISA waiver will be needed.

Minnesota

Status: The state Legislature passed MinnesotaCare in 1992 as the HealthRight law. Implementation began in July 1992 and is continuing.

Coverage: MinnesotaCare provides subsidized insurance for Minnesotans who are at or below 275 percent of the poverty level and do not qualify for Medicaid.

Structure: The reform provides subsidized insurance for low-income or uninsured persons, reforms health insurance, and calls for cost-containment strategies to be delineated by the program's various commissions and committees. The program focuses on the provision of primary, preventive, and mental health care services delivered in managed care settings and is available first to families with children; later, adults without children can enroll. The insurance reform addresses the needs of employers with fewer than 29 employees, prohibits pricing based on gender, and guarantees renewability even with a job change. It also establishes a state reinsurance agency for catastrophic claims and sets limits on the variation in policy premiums. The cost-containment portion of the law mandates the newly created Minnesota Health Care Commission to reduce the rate of increase in health care expenses by 10 percent per year for the next five years.

Financing: This plan is to be supported by a tax on cigarettes, a 2 percent excise tax on hospitals and health care providers, and a 1 percent tax on insurers' gross revenues. The tax does not apply to any revenues collected from public reimbursement. Enrollment in the program will be controlled in order to ensure that MinnesotaCare remains fiscally viable.

Waivers: As discussed above, a pending lawsuit is testing whether the tax on providers is legal under ERISA. In addition, a Medicaid waiver will be needed in order to incorporate Medicaid and other programs into MinnesotaCare.

Vermont

Status: In 1992, Vermont passed a health care reform law that will provide health care access to all state residents. The law calls for two designs for this program to be presented by November 1993. The selected plan is to be implemented in October 1994.

Coverage: The law calls for the development of a plan to assure access to health care for all residents.

Structure: The mandated portions of the yet-to-be-proposed reform include global budgeting; centralized health planning; a uniform set of health benefits; an increase in primary care physicians in the state; insurance reform, including the use of community rating; and the use of certificates of need for new technologies. The law specifies that the design achieve universal access through global budgeting, which will be binding after 1995.

Financing: Financial plans for the reform are not yet designed. Additional taxes are assumed to be a part of the coming proposals, which are to include one single-payer model and one multiple-payer proposal.

Waivers: It is not yet clear whether ERISA or Medicaid waivers will be needed. As mentioned above, Sen. Leahy is trying to modify ERISA to allow exemptions for state reform efforts.

Colorado

Status: The Colorado Legislature passed ColoradoCare, which Gov. Roy Romer subsequently vetoed in 1992. Romer then established a commission to address how Colorado can better achieve health care reform and directed the commission to bring a proposal to the 1993 Legislature.

Coverage: ColoradoCare was to have covered all state residents.

Structure: Health insurance would have been provided privately to all citizens. A limited number of insurance providers would bid to provide insurance for the state's citizens, who would indicate on their state tax forms which insurance program they preferred for the coming year. The state financing program would pay the contracted amount to cover the insurance costs per enrollee.

Financing: The proposed financing of ColoradoCare is unique. The plan called for one state payer for all health expenses, including care provided through Medicaid, Medicare, and child health programs, as well as care for those who are privately insured and the uninsured. All employers (7 percent of salary) and employees (2 percent of income) would pay, and public health monies would supplement the fund, as would cigarette taxes, college student taxes, and income taxes. Costs would be contained through the use of managed care plans, a basic health benefits package that promoted preventive care, and a limit on the rate of growth in insurer payments.

Waivers: Medicaid and ERISA waivers would have been needed to implement this program. This obstacle led to the veto by Romer, who called for better planning to make ColoradoCare viable.

FLORIDA

Status: Florida passed legislation in 1992 to expand the number of state residents who have access to health care. However, the plan is voluntary and does not add any financial resources to pay for the expanded services. Additional policy and legislation is expected.*

Coverage: The legislation intends to expand coverage for the working poor.

Structure: The primary change enacted by the law is a play-or-pay provision that is voluntary until January 1995. If the voluntary program is not successful by then, participation will become mandatory. In order to make health insurance more affordable, the state is expanding its HMO coverage to serve employees of small businesses, and it is developing a Medicaid package that individuals and small businesses can buy. The law also directs insurers to develop benefit packages for small business employers to buy that reimburse preventive services delivered in managed care settings.

Financing: No new revenues or financing is specified in the law until 1995, when the play-or-pay program would become mandated. Cost containment is legislated through managed care delivery programs, a new regulatory agency to consolidate services, consumer education, and insurance reform.

Waivers: As enacted, the legislation would require an ERISA waiver in 1995 if the mandated play-or-pay reform is needed. The proposed addition of a Medicaid package available for purchase will not need a waiver because it does not involve a change in the use of Medicaid monies.

Conclusion

It is evident from their various reform proposals and approaches that a number of states are creatively and aggressively working toward health care reform. Notably, however, the states with the highest proportion of uninsured are not the ones attempting reform. States like Texas, New Mexico, and Louisiana—with more than one-quarter of their populations uninsured—have not been effectively addressing the problem.

Although not alone in its efforts, Minnesota has taken leadership in implementing health care reform. Other states are looking to Minnesota as an example of what can be done to reform health care financing, to improve access to quality health care for those who are uninsured, and to contain costs. It is likely that federal action may later enact what some of the state laboratories have tested. President Clinton has indicated his support of play-or-pay programs, cost-containment efforts, simplified billing, health networks, and universal coverage.[13] If his opinions prevail, programs similar to what has evolved in Hawaii and is developing in Minnesota may become the models for a national program. MM

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*In early January, Florida Gov. Lawton Chiles proposed sweeping changes intended to guarantee full access to quality, affordable health care for all state residents by the end of 1994. Under the proposed Florida Health Plan, all Florida residents would be offered coverage by nonprofit, state-chartered organizations called Community Purchasing Alliances that would collect health care premiums and sign contracts with insurers judged to offer the best quality at the lowest cost. The organizations would be located throughout the state, forming a network of health care cooperatives intended to encourage competition among providers throughout the state. The approach, known as managed competition, has been endorsed by President Clinton and is integral to the Minnesota Health Care Commission's legislative recommendations for integrated service networks.

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Deficits in AIDS/HIV Knowledge Among Physicians and Nurses at a Minnesota Public Teaching Hospital

Keith Henry, M.D., Chris Sullivan, M.D., Scott Campbell, R.N., M.S.P.H.

ABSTRACT

We administered a questionnaire pertaining to recent gains in knowledge about HIV/AIDS treatment and natural history in mid-1990 to all physicians and nurses at a 455-bed public teaching hospital. Surveys were returned by 127 physicians (46%) and 541 nurses (77%). Responses indicated that only 37% of physicians and 18% of nurses knew that the risk for an AIDS-related opportunistic infection becomes significant when the T-helper cell count falls below 200 cells per cubic millimeter. One-fourth of physicians (23%) and more than one-half of nurses (55%) were not aware that the HIV enzyme immunoassay test alone is insufficient to properly determine a patient's HIV serostatus. The survey results revealed a broad deficit in knowledge about the natural history and treatment of HIV infection and demonstrated the need for a clinically relevant core HIV/AIDS knowledge curriculum and for strategies to better educate health care providers to improve care given to HIV-infected potients.

Many studies have indicated that the level of general knowledge about the acquired immunodeficiency syndrome (AIDS) among both the public and heath care workers is relatively high.[1-3] Information about transmission and testing have received the most attention. From 1987 to 1990, the results of several large HIV-related studies led to rapid changes in both the standard of care for HIV/AIDS patients in the United States and in the understanding of the natural history of HIV infection.

Treatment-related developments demonstrated the value of prophylaxis for *Pneumocystis carinii* pneumonia[4-6] and the use of zidovudine for early HIV disease.[7-9] New understanding about the natural history of HIV infection evolved from studies of the progression rates from HIV infection to AIDS,[10,11] survival with AIDS,[12,13] and the relationship between the T-helper cell count level (CD4 count) and risk for AIDS-related complications.[14,15] Awareness of these developments appears to be high among health care workers with a specific AIDS interest. However, our observations of health care workers not regularly dealing with HIV/AIDS issues led to concern that this clinically vital information has not been widely assimilated, despite extensive coverage in the public and professional media. Our study was intended to assess the levels of knowledge among physicians and nurses about the key developments mentioned above.

Methods

In summer 1990, we sent an anonymous survey to all physicians and nurses at a 455-bed acute care urban public teaching hospital. The survey was a three-year follow-up to a previous study analyzing variables affecting AIDS-related knowledge, attitudes, and behaviors among health care workers.[1] We included seven new questions about recent key developments in HIV/AIDS care and knowledge (see "Results" for questions). We tracked responses to the survey by means of a separately returned postcard that identified whether the survey had been filled out and served as a guide for a second mailing of the survey. Other information obtained included HIV demographics; HIV/AIDS experience, background knowledge, and related behaviors; and degree of homophobia and homosexual bias (for details, refer to Reference 1). We analyzed the data by means of standard univariant analysis and used regression analysis to identify which variables contributed to higher knowledge levels. For the purpose of data analysis, a new HIV/AIDS knowledge score was determined by grading each response to the seven new questions; four points were awarded for a correct answer, zero points for a wrong answer, one point for a blank, and two points for an admission of "Don't Know" (a perfect score was 28.0). We made comparisons between professional categories (physician and registered nurses) and within the physician category (staff vs. house staff and internists vs. surgeons).

Hospital Demographics

St. Paul-Ramsey Medical Center is a 455-bed public teaching hospital located in an urban area and is affiliated with the University of Minnesota. In 1990, there were about 13,000 admissions and 308,615 emergency room and clinic visits. An HIV clinic has operated at the medical center since 1985 and is affiliated with the University of Minnesota AIDS Clinical Trials Group. In 1990, there were 1,550 HIV clinic visits and 92 HIV/AIDS admissions. At the time the survey was done, approximately 300 HIV-infected persons were listed in the medical center's HIV/AIDS Program office database (representing 10.7% of the Minnesota HIV/AIDS case load reported to the Minnesota Department of Health).

Results

We obtained responses from 127 physicians (46% response rate), including 14 house staff, 21 surgeons, and 59 internists, and from 541 registered nurses (77% response rate).

Table 1 summarizes the data for the two questions relating to the estimated survival periods for HIV/AIDS. Several HIV natural history studies have suggested that the average progression time from initial HIV infection to AIDS is in the range of eight to 12 years.[10,11] Only 11% of physicians and 10% of registered nurses answered that question correctly (no significant difference). Most health care workers gave estimates that were much shorter (one to seven years).

We selected seven to 24 months as a reasonable estimate for survival after an AIDS diagnosis based on current data.[12,13] Correct estimates were given by 60% of the physicians and 55% of the nurses (no significant difference). Most of the other responses overestimated survival with AIDS (24+ months). House staff more often gave the correct estimate than did staff physicians (p=0.031).

Table 2 summarizes the data pertaining to appropriate testing for HIV or clinical suspicion for AIDS. Current practice for the serologic identification of HIV infection involves screening blood samples with an ELISA enzyme immunoassay and confirming a positive result with a Western blot test.[16,17] Seventy-seven percent of physicians and 45% of nurses were aware that the ELISA alone is not sufficient to confidently establish a patient's HIV status.

Table 1

Knowledge about the estimated survival periods for HIV/AIDS in the United States in 1990

Item 1: HIV to AIDS Progression Time

The average estimated time from HIV infection to the development of AIDS in the absence of treatment:

	1 yr	2-4 yrs	5-7 yrs	8-12 yrs*	12+ yrs	NA	Total
M.D.s	7(6)	31(24)	72(57)	14(11)	1(1)	2(2)	127(100)
R.N.s	51(9)	183(33)	242(44)	53(10)	6(1)	18(3)	553(100)

Item 2: Survival with AIDS

The average survival of a person after an AIDS diagnosis is currently:

	0-6 mos	7-12 mos	7-18 mos*	18-24 mos*	24+ mos	NA	Total
M.D.s	0(0)	3(2)	22 (17)	49(39)	50(39)	3(2)	127(100)
R.N.s	1(0)	19(3)	69(12)	236(43)	213(39)	15(3)	553(100)

*Indicates correct estimate. M.D. = physician. R.N. = registered nurse. NA = no answer.

Table 2

Knowledge about appropriate testing for HIV or clinical suspicion for HIV infection in 1990

Item 1: If the ELISA screen for the HIV antibody is positive, this means the person tested is HIV+ and no additional tests need to be done.

	Yes	No*	Don't Know	NA	Total
M.D.s	9(7)	98(77)	18(14)	2(2)	127(100)
R.N.s	25(5)	249(45)	264(48)	15(3)	553(100)

Item 2: An AIDS-defining opportunistic infection might be the first sign that a person is HIV infected.

	Yes *	No	Don't Know	NA	Total
M.D.s	122(96)	0(0)	3(2)	2(2)	127(100)
R.N.s	422(76)	12(2)	108(20)	11(2)	553(100)

*Indicates correct estimate. M.D. = physician. R.N. = registered nurse. NA = no answer.

Physicians were more aware of this than nurses ($p=10^{-6}$), and internal medicine physicians were more often correct than surgeons (p=0.0027). Many respondents stated that they didn't know the answer (M.D.s 14% and R.N.s 48%). Several natural history studies have demonstrated that an AIDS-related opportunistic infection can be the first sign of HIV infection.[18,19] Almost all physicians (96%) and most nurses (76%) were aware of this. The difference between physicians and nurses ($p<10^{-5}$) was significant.

Table 3 summarizes responses to questions relating to stratification and treatment of persons with HIV infections at risk for complications. Only 37% of physicians and 18% of nurses recognized that the risk for an AIDS-related opportunistic infection becomes significant when the CD4 (T-helper cell) count is below 200 per cubic millimeter. The difference between physicians and nurses was significant ($p<10^{-5}$). A high percentage of respondents left the question blank (M.D.s 10% and R.N.s 41%), suggesting that they didn't know the correct answer.

Since 1990, prophylaxis for *Pneumocystis carinii* pneumonia has been recommended for HIV-infected persons with a CD4 count <200 per cubic millimeter.[6] That recommendation was known by 62% of physicians and 31% of nurses. The difference between physicians and nurses was significant ($p<10^{-6}$). Although some health care workers answered that no prophylaxis was recommended, many indicated that they simply didn't know (M.D.s 28% and R.N.s 61%).

Early use of zidovudine in persons with HIV infection and few, if any, symptoms is recommended for persons with a CD4 count <500 per cubic millimeter.[7-9] Sixty-eight percent of physicians and 28% of nurses were familiar with that recommendation. The difference between physicians and nurses was significant ($p<10^{-6}$). Many of the health care workers indicated that they didn't know what the recommendations were (M.D.s 24% and R.N.s 66%).

Regression analysis to identify variables affecting current HIV/AIDS knowledge showed that for physicians, age ($r^2=0.12$) and background AIDS knowledge ($r^2=0.12$) were the only significant factors contributing to the observed variances (homophobia, homosexual bias, AIDS attitudes and behaviors, AIDS anxiety levels, and the number of HIV/AIDS patients cared for all had $r^2<0.01$). For nurses, the only significant variable identified was background AIDS knowledge ($r^2=0.10$).

Table 3

Understanding about the relationship of T-helper (CD4) counts with the risk for complications and the need for treatment

Item 1: At what level of T-helper cell count does the risk of a major AIDS-defining infection become significant for an HIV-infected person?

	500-750	300-500	201-300	≤200*	NA	Total
M.D.s	1(1)	37(29)	29(23)	47(37)	13(10)	127(100)
R.N.s	29(5)	131(24)	64(12)	100(18)	229(41)	553(100)

Item 2: Preventive (prophylactic) treatment is recommended by the U.S. Public Health Service for all HIV infected persons in the United States who are at high risk for *Pneumocystis carinii* pneumonia.

	Yes*	No	Don't Know	NA	Total
M.D.s	79(62)	10(8)	36(28)	2(2)	127(100)
R.N.s	174(31)	31(6)	338(61)	10(2)	553(100)

Item 3: Zidovudine (AZT) therapy should be considered for all HIV infected persons (including asymptomatic individuals) if their CD4 (T-helper cell count) is under 500.

	Yes*	No	Don't Know	NA	Total
M.D.s	87(68)	7(6)	31(24)	2(2)	127(100)
R.N.s	154(28)	20(4)	367(66)	12(2)	553(100)

*Indicates correct estimate. M.D. = physician. R.N. = registered nurse. NA = no answer.

Discussion

These data suggest that significant deficits in clinically important HIV/AIDS-related knowledge exist among health care workers providing the bulk of clinical care to patients. Physicians (correct 11% to 95% of the time) were generally more knowledgeable than nurses. In some areas, house staff scored better than staff physicians and internists better than surgeons. What constitutes an appropriate level of HIV/AIDS knowledge for health care workers has not been well delineated. Given all the medical information with which non-HIV specialists are expected to be familiar, the mere fact that deficits in HIV/AIDS knowledge exist may not be surprising.

We believe the issues targeted in our survey ought to be considered integral to clinically relevant core knowledge about HIV/AIDS, and we were surprised that the information was not more widely known by the health care workers in our study. Our findings suggest that the extensive media and professional education about HIV/AIDS that has occurred over the past decade might be somewhat overwhelming and may make it difficult for health care workers to filter out the information that is most relevant for day-to-day clinical practice. Continuing medical education programs can help, but they should focus on the most relevant natural history and treatment information.[20,21]

Previous studies have focused on AIDS-related knowledge, stress, behavior, and attitudes of a variety of health care workers in a wide range of settings.[22-28] Most of the studies predated the availability of active treatment or prophylaxis for HIV and its complications. Key findings from previous studies include the observation that physicians often stigmatize HIV/AIDS patients,[29] that general HIV/AIDS competence among primary care physicians is lacking,[30] that primary care physicians often do not assess patients for HIV risk,[31] and that learning about HIV care in an outpatient clinic results in more favorable attitudes, yet few physicians have had that opportunity.[32] We are unaware of any similar survey about HIV/AIDS knowledge that has included the clinical topics we targeted.

We are cognizant of many situations where lack of key HIV/AIDS knowledge directly resulted in inappropriate care of patients. Typical scenarios observed at our institution illustrating this point include the following: the labeling of a patient as HIV-infected when the patient's ELISA was positive but Western blot was negative; the administering of trimethoprim/sulfamethoxazole in low doses to an HIV-infected patient in the emergency room with no knowledge of the patient's CD4 level; the belief that aggressive treatment of HIV complications is not worth the effort because of the "poor" prognosis; and puzzlement over a postoperative fever in an HIV-infected patient, again with no knowledge or understanding of the patient's CD4 level and its possible relationship to the fever. These are just a few examples of situations still encountered that illustrate the need for improved HIV/AIDS knowledge among health care workers in general.

The understanding about the concept of HIV/AIDS as a chronic disease[33] exhibited by the health care workers in our study was illuminating. In general, there was a perception that the period from initial HIV infection to AIDS was relatively short, yet the survival period with AIDS was often overestimated. We believe this reflects a lack of understanding about the chronicity of HIV infection and a mistaken impression that treatment advances affect only length of survival with AIDS, when, in reality, much of the treatment is aimed at delaying the onset of AIDS and maintaining a disease-free state.[6-9,34]

Although efforts have been made through professional societies and publications to disseminate new knowledge about the treatment of HIV/AIDS,[35] our data suggest that many physicians and nurses still do not know which HIV-infected persons are at risk for AIDS or how to evaluate or treat them. Professional organizations might consider developing a curriculum focusing on core HIV/AIDS knowledge that could be used to educate targeted audiences.[36] Along those lines, the U.S. Public Health Service is working on establishing a community standard of care for HIV/AIDS.[37] In the meantime, 10 years into the HIV/AIDS epidemic, unsettling knowledge deficits exist among U.S. clinicians pertaining to the most clinically important new HIV/AIDS topics. MM

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Clinics Without Walls

Alternative Practice Structures for Physicians in Independent Practice

Douglas A. Shaw

The Twin Cities health care system is changing in ways and at a pace that have not been experienced anywhere else in the country. Health plans and major purchasers of health care services are demanding more cost containment and evidence that physicians are delivering services efficiently and with good outcomes. Large, well-managed, integrated health care delivery systems are positioning themselves to respond to these demands.

If independent physicians, now organized as smaller single- or multispecialty groups, also hope to survive—and thrive—they will need new skills, organizational structures, and management systems. To help member physicians make these changes, the Minnesota Medical Association, in collaboration with the Hennepin and Ramsey county medical societies, is developing new concepts for the organization of medical practices. The associations are creating a model for an alternative practice structure called "Clinics Without Walls."

Networks of Affiliated Practices

To meet the demands of health plans and major purchasers of health care, independent physicians need to begin exploring ways of affiliating in order to strengthen their management systems and to handle working and contractual arrangements with managed care organizations, hospitals, and others. While the option of fully integrating independent medical practices through mergers or acquisitions may offer certain legal and operating advantages, this approach will not necessarily create—in reasonable time frames—delivery systems of the size and scope that are attractive to large group purchasers of health care services. As an alternative, independent groupings of physicians may wish to affiliate with one another under the Clinics Without Walls structure.

> "Independent physicians need to begin exploring ways of affiliating in order to strengthen their management systems."

Clinics Without Walls are envisioned as networks of affiliated practices in which the participating physicians continue part of their practice outside the network but come together in an appropriate legal structure to promote professional development and create a practice environment that encourages high-quality, accessible care at a reasonable cost. (The terms "Clinics Without Walls" and "network" are interchangeable in this paper.) Clinics Without Walls will be owned and controlled by the member medical practices and will provide a vehicle through which participating practices can undertake joint business ventures and related activities (Figure 1).

The physicians participating in Clinics Without Walls and their support staffs will continue to be employed by the various professional associations, partnerships, or other legal entities that already exist. Pension and profit-sharing plans for participating practices and methods for sharing overhead and distributing income within participating practices will remain intact. Most important, physicians will continue to provide care through the array of decentralized facilities already used by the participating practices, continuing their provision of health care services in smaller, patient-friendly settings.

The governance of Clinics Without Walls will rest with a board of directors elected by physicians affiliated with the member or shareholder medical practices (Figure 2).

The board will meet regularly, probably monthly, with member or shareholder meetings held several times each year. Using a committee structure and with input from participating physicians, the board will establish organizational policies. If so desired, certain business decisions might require membership consensus before implementation.

Size and Scope of Clinics Without Walls

The initial development of Clinics Without Walls will probably occur in the Twin Cities. Here, the typical network will be multispecialty in composition and will consist of several hundred physicians, including primary care specialists (e.g., family physicians, internists, pediatricians, and ob/gyns) and a variety of other specialists in such areas as allergy, cardiology, rheumatology, pulmonary medicine, urology, ENT, dermatology, general surgery, and ophthalmology. Approximately 60 percent of the physicians participating in each network will be primary care physicians, who will play a key role in coordinating patient care.

The development of Clinics With-

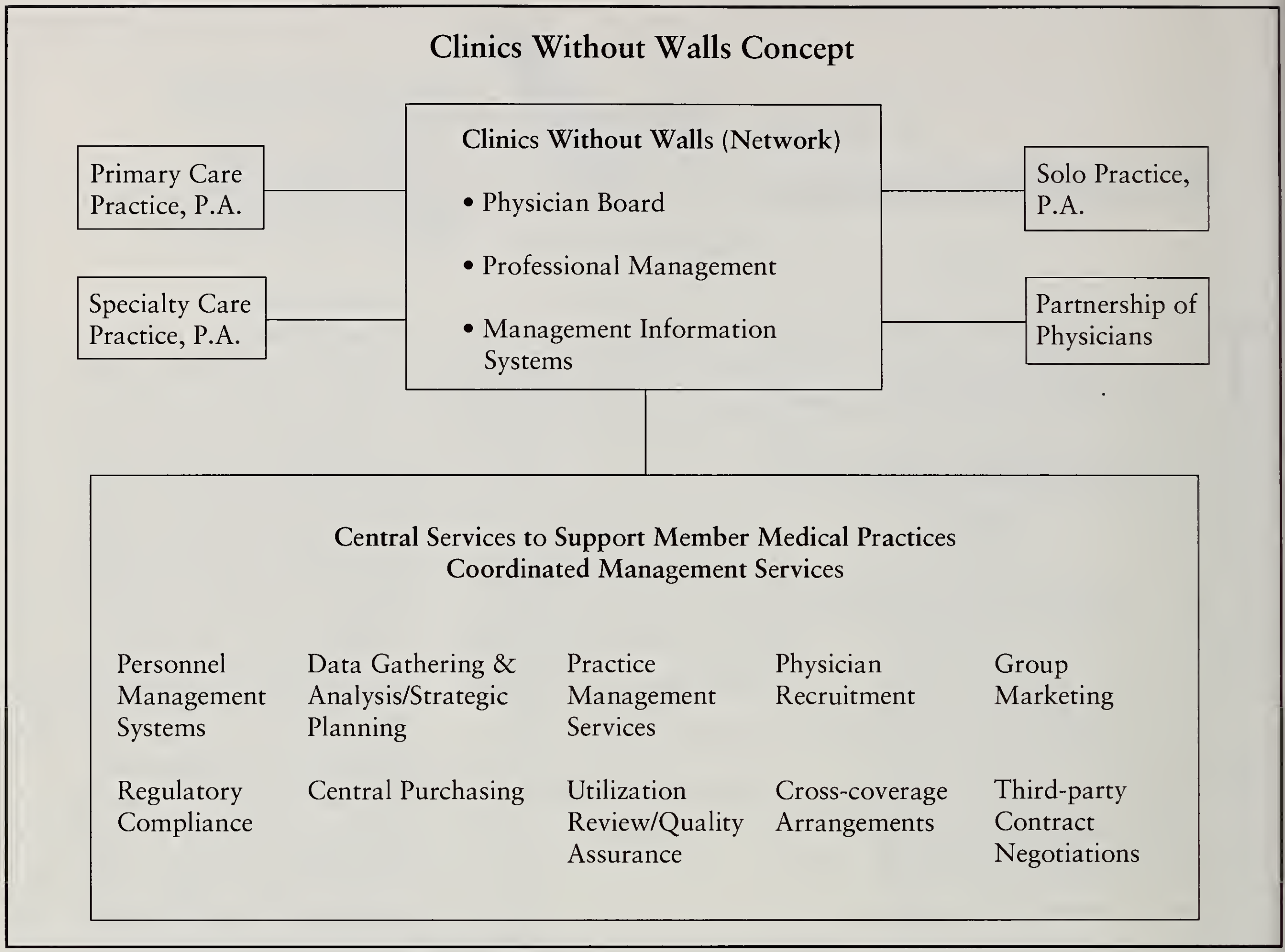

Clinics Without Walls Concept
Clinics Without Walls (Network)
• Physician Board
• Professional Management
• Management Information Systems
Primary Care Practice, P.A.
Specialty Care Practice, P.A.
Solo Practice, P.A.
Partnership of Physicians
Central Services to Support Member Medical Practices
Coordinated Management Services
Personnel Management Systems
Data Gathering & Analysis/Strategic Planning
Practice Management Services
Physician Recruitment
Group Marketing
Regulatory Compliance
Central Purchasing
Utilization Review/Quality Assurance
Cross-coverage Arrangements
Third-party Contract Negotiations

Figure 1

out Walls outside the metropolitan area also holds great potential but will need to be pursued carefully with the advice of legal counsel to avoid running afoul of antitrust laws.

A model for the Clinics Without Walls is under development with the guidance of an MMA physician steering committee working with outside advisers. The MMA, with the Hennepin and Ramsey county medical societies, will make available to physicians prototype organizational documents, related materials, and information about Clinics Without Walls. The medical associations will not provide any other development assistance to emerging or operational networks or otherwise sponsor these networks.

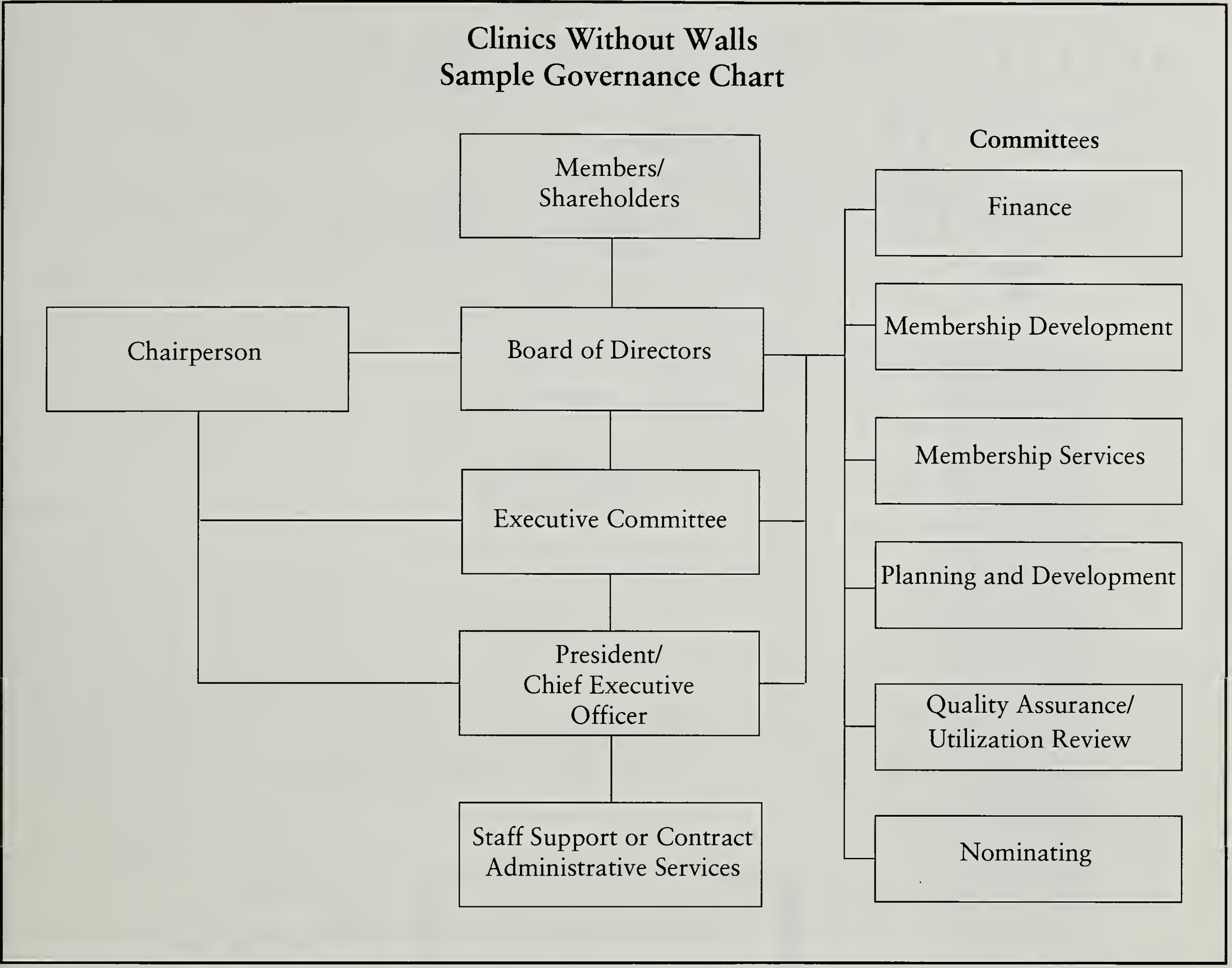
Physician Selection and Credentialing

The success of Clinics Without Walls will be determined, in large part, by their ability to attract and select participating physicians who are compatible with one another, committed to delivering cost-effective health care, and willing to bear the risks associated with a complex business venture. The specific criteria the networks use to select physicians will likely involve the desired distribution of physicians by specialty within the network, geographic considerations, and information concerning the cost and quality of services rendered by the physicians to their current patients.

It is possible that Clinics Without Walls will ask applicant physicians to allow the network access to their health care cost and utilization profiles maintained by managed care organizations with which the network has contracts. This information will be instrumental in identifying practice patterns and medical practice styles that are most compatible with the network's goals.

Applicant physicians will also be asked to review and indicate their willingness to comply with certain network protocols. For example, physicians in a network may be required to submit practice- and patient-related data for purposes of utilization review and quality assurance; they may be expected to cooperate with programs to review and/or certify hospital admissions and other patient care activities; and they may be required to refer patients seen under contract with managed care organizations or others exclusively to physicians, hospitals, and other health care providers participating in the network or with whom the network has a service agreement.

The affiliation of physicians and medical groups with Clinics Without Walls will *not* be exclusive. Many physicians already participate with broad-based health plans such as



Clinics Without Walls
Sample Governance Chart

Members/ Shareholders
Committees
Finance
Chairperson
Board of Directors
Membership Development
Membership Services
Executive Committee
Planning and Development
President/ Chief Executive Officer
Quality Assurance/ Utilization Review
Staff Support or Contract Administrative Services
Nominating

Figure 2

Medica, Blue Cross and Blue Shield, preferred provider organizations, or with more limited-scope programs sponsored by local hospitals. Physicians who already belong to a network will not be precluded from participating with other networks or from contracting directly with managed care organizations of their choice.

Principal Activities

Database creation

The network's central office and the offices of participating physicians will be linked by an on-line, real-time computer system, allowing for the immediate verification of patients' eligibility for service under various managed care organizations with which the network has contracts. Additionally, the system will simplify referral and provide prompt clinical feedback when patients need to be seen by other medical specialists in the network or admitted to a hospital.

In effect, a comprehensive health care database will be created, combining information about the cost and utilization of health care services rendered to patients of the network both in and out of the hospital. Analysis of these data and feedback of pertinent information to physicians and hospitals, patients, managed care organizations, and other group purchasers will help to eliminate unnecessary and inappropriate care. Equally important, these systems and enhanced communication between providers, patients, and purchasers will promote efforts to deliver high-quality, cost-effective service and to document continuous improvements in health care service delivery and outcomes.

Management enhancement

Clinics Without Walls will provide a number of shared management services to participating physicians. While the physicians will, for the most part, continue to employ and directly supervise the support personnel required at each office site, many other administrative and management services can be provided efficiently and cost-effectively through centralized resources in the network office. Shared services will be available in such areas as personnel management systems; competitively priced group purchasing of forms, supplies, furnishings, and equipment; physician recruitment; and compliance with OSHA and other laws and regulations affecting medical practices or employers in general. Clinics Without Walls might

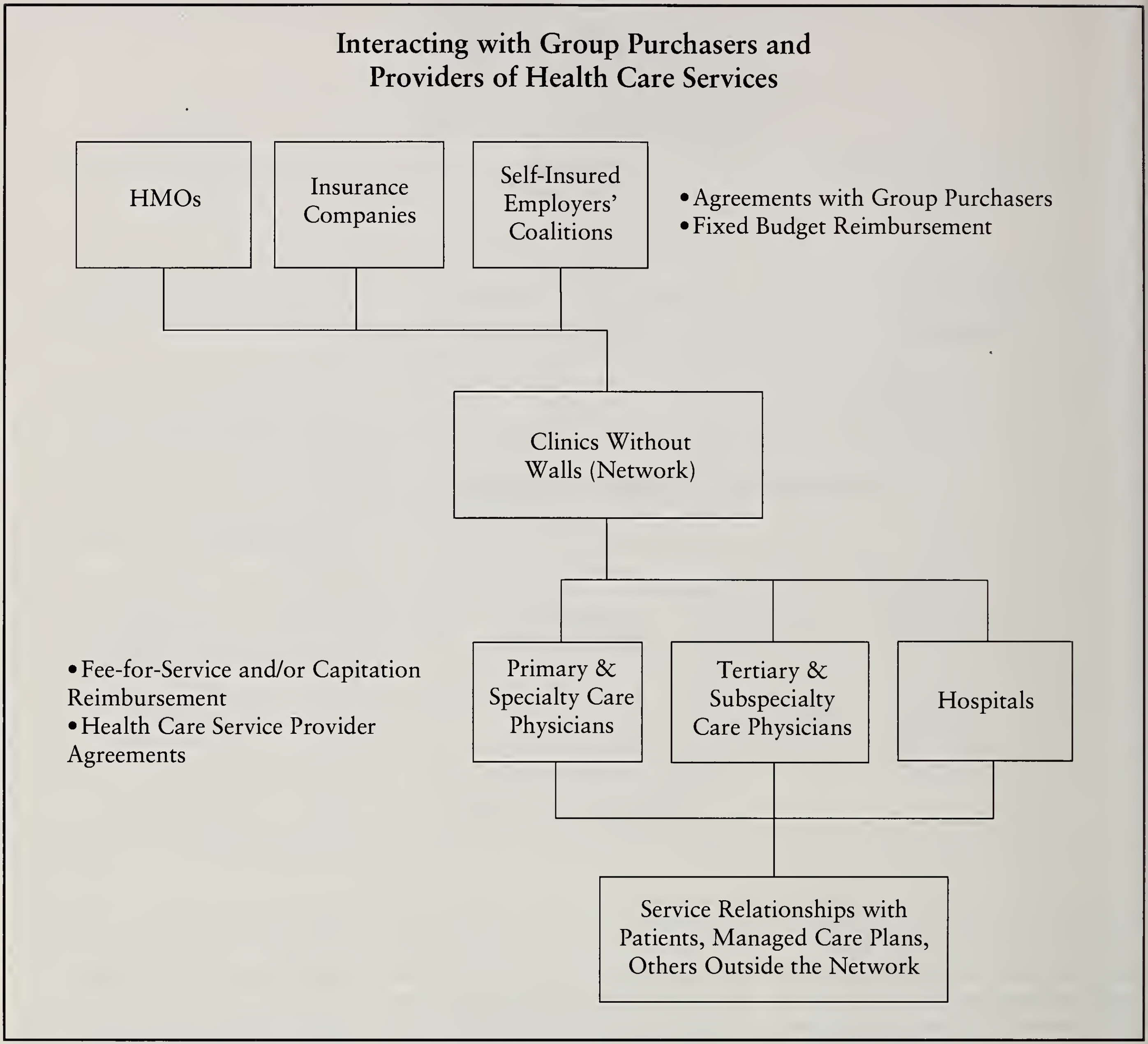

Interacting with Group Purchasers and Providers of Health Care Services
HMOs
Insurance Companies
Self-Insured Employers' Coalitions
• Agreements with Group Purchasers
• Fixed Budget Reimbursement
Clinics Without Walls (Network)
• Fee-for-Service and/or Capitation Reimbursement
• Health Care Service Provider Agreements
Primary & Specialty Care Physicians
Tertiary & Subspecialty Care Physicians
Hospitals
Service Relationships with Patients, Managed Care Plans, Others Outside the Network

Figure 3

also seek competitive bids from the suppliers of clinical support services, such as reference laboratories and ambulatory surgery facilities, to provide frequently used services to practices participating in the networks.

Contract negotiation

Clinics Without Walls will seek strategic relationships with health maintenance organizations and/or Blue Cross and Blue Shield and with commercial insurance companies. Arrangements may also be made with managed care organizations or others, allowing the network's services to be offered to large self-insured employers or buyer coalitions.

Structured properly, these alliances will benefit both parties and the patients they serve. The network will gain access to sophisticated marketing expertise and relationships already existing between the managed care organization and its customers and prospects; in turn, the managed care organization will gain access to a network of committed, competent, cost-conscious physicians (Figure 3).

Service arrangements with group purchasers of health care services will be based on the Clinics Without Walls receiving some form of fixed reimbursement (e.g., a set amount of money per enrollee per month) in return for which the network will agree to provide or coordinate the provision of a broad array of health care services to enrollees.

Within the network, reimbursement to participating physicians will likely be fee-for-service, using schedules that establish maximum allowable fees and possibly the withholding of a portion of fees in a contingency (or risk) reserve. As adequate data become available, it is probable that capitation payments will be used, particularly for primary care physician services.

The funds paid by Clinics Without Walls to participating medical groups will be available to individual physicians through the regular compensation formulas employed by the various medical practices. These formulas will vary from practice to practice and will not be subject to regulation by the network.

The risk assumed by Clinics Without Walls will require the networks to establish stop loss and reinsurance arrangements with insurance companies, making the risk carried by the network and its physician participants reasonable in terms of the number of patients served.

Summary

Clinics Without Walls will function as integrated medical practice business organizations for the purpose of carrying out ventures approved by their boards of directors, including the delivery of patient care services under contract to managed care organizations or others.

The networks will be responsible for receiving revenue for contracted services and for paying expenses. Patient care should be enhanced by this structure, which will result in improved communications and information exchange among participating physicians and greater patient access to convenient, decentralized medical facilities. Patients and physicians will likely benefit from the expanded services made available through shared network resources.

As mentioned above, the MMA and the Hennepin and Ramsey county medical societies are currently developing a detailed Clinics Without Walls prototype that will be made available for implementation during the first half of 1993. **MM**

Douglas Shaw previously served as chief executive officer of the Minnesota Medical Association and is currently a principal of Summit Partners, a Twin Cities-based health care consulting firm. He has served as a consultant to the medical associations in planning the Clinics Without Walls program.

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The Organization of Clinics Without Walls

Legal Considerations

Michel A. LaFond, J.D.

Medical groups of all sizes are facing increasing demands from the purchasers of health care, who want assurances that physicians are providing cost-effective, quality care. To be more cost-effective and efficient—and to provide the data to show it—smaller single- and multispecialty groups are searching for new ways to organize and deliver their services. Clinics Without Walls—economically integrated, geographically dispersed medical group practices—may well be the answer. In a companion article in this issue, "Clinics Without Walls: Alternative Practice Structures for Physicians in Independent Practice," (page 29), Douglas Shaw discusses the current market interest in large, integrated medical groups and the governance and operational issues concerning Clinics Without Walls. The following article focuses on the process of organizing Clinics Without Walls, legal issues that should be considered in creating such medical practices, and several possible structures for integrating medical practices.

The Organization Process

Organizing Clinics Without Walls means reorganizing the medical practice of a physician or a medical group into a larger, economically integrated, multispecialty group practice designed to provide a new medical services delivery product. It should be distinguished from a single physician's or medical group's contracting with and participating in a PPO or an HMO. The Clinics Without Walls become new medical practices owned and governed by the participating physicians. The objective behind this new type of organization is to promote greater coordination of patient care among physicians and other providers in the Clinics Without Walls; investment in new administrative and management information systems that will facilitate centralized billing and collections, claims processing, and patient data collection and reporting; clinic-based quality assurance and utilization review; and the sharing of substantial financial risk.

"Smaller single- and multispecialty groups are searching for new ways to orgnanize and deliver their services."

Accordingly, the organization of Clinics Without Walls should be undertaken by the physicians who will be owners and participants and should be designed to address and satisfy their medical practice interests and concerns. The physicians who initiate the organization should also consider demands of buyers in the marketplace for coordination of services, outcomes information, and other required patient data reports. Discussion of these issues should lead to the preparation of a preliminary outline of a business plan, and the initiating physicians should then meet with other physicians and medical practice groups with whom they would like to practice medicine. The preliminary business plan outline should be discussed with other prospective participants and modified as necessary to satisfy the participating physicians' interests and concerns. A business consultant and legal counsel should be retained to flesh out the business plan when a sufficiently large core group of physicians has been identified (all of whom have been involved in the discussion and revision of the business plan outline) and when the physicians have demonstrated real enthusiasm for the project.

The Business Plan

The business plan for Clinics Without Walls should include an in-depth analysis of marketplace requirements, existing and prospective competition, patients' needs and concerns, and the Clinics Without Walls' medical services delivery product. It should also include provisions for coordinating care among participating physicians and other providers; billing; processing claims; collecting receivables; conducting clinic-based physician peer review of quality and utilization; using management information systems to collect, analyze, and report patient costs and outcomes data; marketing services; establishing a timetable for setting up the organization; setting a budget; making capital contributions; and structuring the Clinics Without Walls.

In the course of preparing the business plan from the preliminary outline, the consultants and participating physicians should analyze alternative organizational structures. Only after the business plan has been substantially completed should the structure be determined. While selecting the core group of participants and preparing the outline, the initiating physicians should proceed on the basis of a simple letter agreement that addresses their concerns related to recruiting the core participants and developing the business plan outline. The Clinics Without Walls do not need corporate structure or a partnership agreement until after the business plan is substantially developed and the structure determined.

Once the business plan is completed, the physicians can recruit other physicians and medical groups. Although it is appropriate and helpful to modify the business plan outline when recruiting the core physicians, it is not practical or efficient to revise it as each new physician or medical group joins the Clinics Without Walls. Prospective participants must trust and respect the core physicians, and they must have confidence and assurance that they will participate or be represented in the organization's governance and operation. Finally, they must have real enthusiasm for the project—or they should not join.

Legal Concerns

Myriad legal issues must be considered in creating any new business, but most of those issues are manageable. Indeed, new businesses are set up every day. The creation of Clinics Without Walls raises issues concerning corporate and partnership law, state and federal antitrust law, Medicare/Medicaid fraud and abuse, state conflicts of interest law, and the affiliated service groups or leased employee provisions of the Employee Retirement Income Security Act (ERISA). Business advisers and counsel should be consulted throughout the process of organizing and operating the Clinics Without Walls to ensure that these and other relevant legal issues are identified and addressed most effectively. The scope of this article permits only a general discussion of some of the issues, and the discussion should not be viewed as advice concerning the organization or operation of any specific Clinics Without Walls.

Corporate and partnership law

The corporate or partnership law applicable to the creation of Clinics Without Walls presents few restrictions. Such documents as articles of incorporation, bylaws, shareholder control agreements, voting agreements, shareholder buy/sell agreements, and partnership agreements can accommodate virtually all concerns of participating physicians.

Antitrust laws

Two basic antitrust issues to be analyzed in organizing Clinics Without Walls concern the attempted or actual creation of monopolies and conspiracies or agreements between or among competitors to restrain trade. Efforts to monopolize, eliminate competition, and control a market are prohibited by federal and state antitrust laws. Physicians organizing Clinics Without Walls must determine the relevant market in which the Clinics Without Walls are to compete and whether they will have "market power" within that market. As a seller of medical services, Clinics Without Walls have market power if they have the "ability profitably to maintain prices above competitive levels for a significant period of time."[1] The analysis of what is the relevant market and whether the new Clinics Without Walls will have market power can be made readily if the new medical group is of modest size and strength, or it can require a more in-depth and sophisticated analysis if the relative size and strength of the new group will be substantial. In last year's complaints concerning physician organization in Mankato, Alexandria, and St. Cloud, the state attorney general alleged that 20 percent to 90 percent of the physicians in each of these communities participated in the new organizations, thus creating "market power" and attempting to monopolize these markets. Clinics Without Walls can be competitive without being so large and strong that they create market power.

> "The business plan for Clinics Without Walls should include an in-depth analysis of marketplace requirements."

To avoid the creation of conspiracies to restrain trade among the participating physicians, who must be recognized as competitors until they are properly integrated into the new Clinics Without Walls, there must be "significant and substantial" economic integration among participants. It is clear, and it has been confirmed by the courts and a representative of the Minnesota attorney general, that *full* economic integration is not required to avoid violation of the antitrust laws. Business entities with some, but not full, integration are joint ventures and are scrutinized under the "rule of reason." Joint ventures with significant and substantial economic integration that are organized to provide a new product should be viewed as procompetitive and lawful under the rule of reason. Whether a particular joint venture will be viewed as pro-competitive and acceptable depends largely upon the facts, and there is little helpful precedent to establish minimum requirements for a joint venture.

Economic integration and the creation of a new medical services delivery product result from capital contributions to the new venture; investment in joint administrative or medical support staff; central billing, claims processing, and collection systems; management information systems to collect, analyze, and report patient data; clinic-based quality assurance and utilization review programs; and the sharing of substantial risk of adverse financial results through centralized billings and collections, withhold agreements, and capitation agreements.

As the core physicians are organizing and developing the business plan outline, when there is little economic integration, participants should not hold discussions or enter agreements that are prohibited by the antitrust laws, such as price fixing, group boycotts, and division of markets. As the process of organizing a joint venture proceeds, discussions and agreements among bona fide joint venture participants no longer are viewed as "naked" agreements in restraint of trade, and the rule of reason becomes applicable. The Minnesota attorney general has invited physicians seeking to organize Clinics Without Walls to present statements of specific facts regarding their plans and to request advisory opinions. Of course, receiving an advisory opinion that says no enforcement action will be taken is comforting and helpful, but the opinion may not apply if any of the material facts change.

ERISA provisions

As physicians and medical groups join Clinics Without Walls, an "affiliated service group" (as identified by ERISA) likely will be developed or employees will be identified as "leased employees." The qualified benefit programs of participants in an affiliated service group must satisfy the anti-discrimination and other ERISA rules, and when employees are identified as "leased employees," other ERISA provisions must be satisfied. Under certain circumstances and with proper structuring, the "affiliated service group" and "leased employee" designations can be avoided, and, in other situations, the ERISA requirements can be satisfied with less disruption of existing qualified benefit plans. Financial consultants and counsel should be engaged to help address the ERISA issues.

Fraud and abuse and conflict of interest laws

Similarly, as the Clinics Without Walls are being designed and organized, a thorough analysis should be undertaken of the Medicare/Medicaid fraud and abuse and Minnesota conflict of interest laws. Very generally and simply stated, these statutes prohibit the offer or receipt of any remuneration—anything of value—to induce the referral of a patient or the sale of any medical goods or services. Sharing of profits or other payments for referrals within a medical group practice through which referring physicians conduct 85 percent or more of their practice are exempt from the prohibitions, and accordingly, there is little fraud and abuse concern with Clinics Without Walls. However, when separate hospitals or other referral sources or recipients participate in the organization or operation of Clinics Without Walls, closer analysis of the applicable fraud and abuse statutes and the safe harbor regulations should be conducted.

Alternative Structures

A variety of corporate or partnership structures can be designed for Clinics Without Walls, but the structure should be determined only after the business plan is near completion and the applicable statutes and regulations have been analyzed. Clinics Without Walls organized as partnerships of professional corporations and business corporations currently exist in the Twin Cities metropolitan area. Popular in California is a model in which a nonprofit, tax-exempt foundation controlled in whole or in part by a hospital acquires medical practice assets and contracts with physicians for the provision of medical services.

Although other structures might be used, the model suggested by the Minnesota Medical Association and the Hennepin and Ramsey county medical societies (and described in the article on page 29 of this issue) is that of a business corporation that provides administrative services to participating medical groups. Under this model, the business corporation is owned and controlled by individual physicians. Through their share ownership, physicians elect the members of the board of directors, which governs the corporation and its business. The corporation limits its activities to the provision of administrative services and does not engage in the practice of medicine. The participating medical groups retain ownership of their medical office space and equipment and continue to employ administrative and medical support staff. Physicians remain employees and shareholders or partners of their respective medical groups. The desired mix of practice specialties among the participating physicians and medical groups is determined initially by the organizing physicians and subsequently by the board of directors.

The medical groups and physicians are linked to the corporation and each other through provider service agreements that obligate the network to provide medical services and allocate revenues among participating medical groups through a capitation or other formula, and obligate the medical groups to share the burden of fees withheld, risk pool deficits, limited payments through capitation, or other financial risks. Funds are retained by the corporation to cover its expenses, but all other revenues are passed through the corporation to the participating medical groups in accordance with the terms and provisions of the medical provider service agreement. With the full payment of revenues to the medical practice groups for medical services provided, little, if any, taxable income should be realized by the Clinics Without Walls.

> "Full economic integration is not required to avoid violation of the antitrust laws."

The corporation contracts with health maintenance organizations and other managed care plans and, with its own management information systems, processes claims, manages capitation, and, when desired, provides central billing and collections for fee-for-service patients. Through committees of the board of directors, participating physicians engage in peer review of quality and utilization; facilitate the coordination of patient care; monitor outcomes, costs, and the value of patient care; establish fees and capitation rates; and otherwise manage the corporation's financial and business operations.

A few of the benefits provided by the structure are 1) limited liability for the participating medical group practices for the corporation's debts and liabilities, 2) ownership and control of the Clinics Without Walls by physicians through the ownership of corporate shares, and 3) possible avoidance of ERISA's affiliated service group designation through individual physician ownership of corporate shares, restriction of the corporation's business to administrative services, and satisfaction of certain ownership tests.

Conclusion

A variety of structures and agreements can be developed for the organization and operation of Clinics Without Walls. Physicians organizing the Clinics Without Walls should prepare the initial outline of the business plan and then engage other physicians who will participate. Consultants and counsel should be retained to assist in completing the business plan, to identify and analyze the relevant legal issues, and to aid in the development of the structure and agreements required to satisfy or avoid the legal issues and implement the business plan. MM

Michel LaFond is a shareholder in the Minneapolis law firm of Orbovich, Fletcher & LaFond, Limited.

REFERENCE

1. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines, April 2, 1992.

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Workers' Compensation System Gets Needed Overhaul

But Will It Be Enough?

Gail Brandt, J.D.

The Minnesota Legislature has tinkered with the state's workers' compensation program for many years, but this year the program underwent a major overhaul. Business leaders have argued that the overhaul was necessary in order for Minnesota businesses to compete in the global market. Some continue to argue that the revamping is not enough and that, ultimately, we need to trade in the program for a new model.

The workers' compensation overhaul was intended to make the program run more efficiently at a lower cost. The modifications include a mandatory 16 percent overall reduction in the premiums that workers' compensation insurers charge for coverage; the introduction of managed care organizations for health services; the change to a relative value-based reimbursement system for health services, with an overall 15 percent reduction in reimbursement; the introduction of treatment standards for health care provided to injured workers; limits on attorney fees; and a variety of other changes.

Workers' Compensation Costs

The workers' compensation program has two major cost components. Most costly is the indemnification of employers for the benefits paid to injured workers while they are unable to work. In Minnesota, some benefits are paid in a lump sum, which has created an incentive for litigation to recover the maximum entitlement. The program's other major expense is the health care provided to injured workers. Two types of health care services are provided. The treatment and rehabilitation provided to injured workers in order to improve the worker's ability to function and, ideally, return to work are generally referred to as health care services. These services are affected by the new managed care requirements and treatment standards.

"Health care providers have a stake in the workers' compensation program."

The other type of health care services are those intended to help the worker establish the extent of permanent or partial disability in order to recover the maximum entitlement. These services include the medical examinations conducted for either the worker or the insurer when the extent of the disability is in dispute. These types of health care services are frequently referred to as "forensic" services because they are not therapeutic or rehabilitative. Forensic services may be affected by the new disability rating system also published as a result of the workers' comp reorganization. Because the new managed care provisions of the workers' compensation program are intended to help reduce the cost of the treatment and rehabilitation services, they will do very little to address the costs associated with the forensic services. The workers' compensation costs related to recovery of entitlements and the levels of entitlement are political hot potatoes for the Legislature. As a result, the reforms tend to focus on the health care costs rather than on the benefits available to workers.

Stakeholders

Injured workers, employers, insurance carriers, health care providers, workers' compensation attorneys, and the state all have a stake in the workers' compensation program. These groups generally agree that injured workers should receive appropriate treatment. It also makes sense for employers to pay the cost of that treatment because they profit from the work and because the relative risk of various jobs can be balanced. However, there is a natural tension between the interests of workers and employers, and that makes it difficult for the Legislature to reach conclusions about entitlement. Insurance carriers, attorneys, and health care providers, to the extent they provide forensic services, are considered little more than parasites taking for themselves money that should go to the injured worker and adding to employers' benefits costs. This is probably not a fair characterization, however, because the litigation and forensic work are intended to help the injured worker recover, and the insurance companies are helping employers pool their financial risk; nonetheless, the competing interests of these stakeholders undeniably increase the cost of the workers' compensation program.

Health care providers who treat injured workers are a bit of an enigma to employers and insurers. There is a natural and necessary advocacy component to the physician-patient relationship that insurance carriers tend to distrust because it can also be characterized as collusive. Not surprisingly, concerns about treatment costs often focus on conditions for which the diagnosis is based heavily upon the patient's complaints and descriptions—chronic pain, back injuries, and the like. Some health care providers have developed models for occupational and industrial medicine that emphasize returning the worker to work. Employers and insurers favor these models, which are viewed as a team approach to recovery. When an employee is able to return to work, even in a limited capacity, it significantly reduces the cost of benefits and increases the likelihood the worker will fully return to work.

Although these models for occupational and industrial medicine are emerging, workers' compensation insurers complain that health care providers do not provide records in a timely manner and do not return their calls regarding treatment and follow-up care. Insurers also assert that some health care providers facilitate the abuse of the workers' compensation system because they don't encourage workers to return to work. Undoubtedly, these characterizations could be debated for days, as the Legislature has done, but the important point is to be aware of these perceptions as we enter the new era of workers' compensation and evaluate the program.

Reimbursement

Provider reimbursement will be changed under the new law to a resource-based relative value scale. The statute requires that the new reimbursement system take effect October 1, 1993. The proposed system is expected to be designed by June and may look something like the Medicare or Blue Cross and Blue Shield reimbursement systems, with a few changes to fit the types of services provided to workers. Under the new system, the total reimbursement for all services will be reduced by 15 percent. Some services will be cut by more than 15 percent, while others, like the cognitive assessments for evaluation and management, may be increased.

Managed Care Organizations

Employers and insurers are now permitted to provide care to insured workers by contracting with managed care organizations (MCOs). Rules published in October specify the requirements for MCOs, which must be certified by the Department of Labor and Industry. The requirements apply to providers in a wide variety of specialties, including chiropractic and rehabilitation and therapy, and they cover treatment or assessment within 24 hours of an injury and the use of treatment guidelines and other managed care protocols like pre-authorization. Several MCOs have already been certified, and others will soon follow. Health care providers have some protection under the statute because MCOs cannot discount provider fees; they must pay providers the same rate as established under the fee schedule. As a result, MCOs will need to convince insurers and employers that they provide added value and reduced costs.

A number of considerations must be addressed when deciding whether to participate in, or form, an MCO. These considerations include the nature of the practice, the level of workers' compensation services provided, the organizations with which the practice is affiliated and whether they are forming MCOs, the practice's ability to provide the prompt response required under the statute, and, of course, the MCO's treatment protocols or pre-authorization and referral requirements.

Treatment Standards

The new statute authorizes the development of treatment standards that health care providers must use under the workers' compensation program. These standards will apply to providers whether or not the service is rendered through an MCO. More specifically, the Department of Labor and Industry is developing guidelines for the treatment of repetitive trauma of the upper extremity, low back pain, diagnostic medical imaging, hospitalization, and surgery. Preliminary versions of the standards are being circulated for comment. (To review or comment on the treatment standards, contact Molly Sigel at the Minnesota Medical Association, 612/378-1875.)

Under the preliminary version of the rules, failure to comply with a treatment guideline will create a presumption that the service was excessive and not reasonably required to cure or relieve the effects of the injury. In such a case, the provider would have to prove that the treatment was appropriate and necessary or that the rule was not applicable. If the treatment is found to be "excessive, unnecessary, or inappropriate" the provider is subject to sanctions ranging from fines to disciplinary action by the Board of Medical Practice, as well as exclusion from state-funded programs. The new statute also provides that the provision of excessive, unnecessary, or inappropriate services can be considered a criminal violation as theft. In order to convict a health care provider for theft, the prosecutor would have to prove intent to "steal" from the program, but intent can be demonstrated from a pattern of knowing and repeated provision of treatment characterized as excessive.

Providers must become familiar with the Department of Labor and Industry's "Treatment Guidelines," which were scheduled for publication in January but were not completed when *Minnesota Medicine* went to press. Providers should also carefully document in the medical record any decision to provide treatment that differs from the guidelines.

Future Reform

Efforts to reform the state's entire workers' compensation program will likely continue because Minnesota's program is still more costly than those in neighboring states. The shift to managed care for the treatment of injured workers is likely to continue as well, and providers may find that they can either do forensic workers' compensation services or treatment services, but not both. **MM**

The Department of Labor and Industry is interested in comments from providers regarding the new regulations and Treatment Guidelines. For more information, contact Molly Sigel at the MMA, 612/378-1875.

Gail Brandt is an attorney with Fredrikson & Byron, P.A., in Minneapolis.

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• • • • • •

Physicians Find Good Retirement Plans Attract Better Employees

Michael J. Blake and Roger L. Schlader

Physicians know how important good employees are to their practices. They know that attracting and keeping the best and brightest requires not just competitive salaries, but attractive benefits as well. That means more than just health insurance. It also means offering benefits that can help employees plan for retirement. Of course, such benefits also offer the physicians appealing retirement savings opportunities.

Studies show that employees expect health insurance from an employer. Everything else being equal, when choosing between two jobs, a prospective employee will probably select the one with a retirement plan over the one without it.

Simple and Cost-Effective

Many employers think retirement plans are too costly and complicated for small businesses. Some of them are. But there are also some simple, cost-effective alternatives that shouldn't be overlooked.

Some physicians will say they or their employees can't afford to save for retirement right now. Perhaps they should consider the cost of waiting until tomorrow: With 30 years to save, you could set aside $4,414 a year at 8 percent to yield $500,000. But if you wait 15 years, you'll have to save $18,415 annually to reach the same goal.

Whether it's for you, your employees, or both, saving through a tax-qualified retirement plan also brings substantial tax savings. Be honest—you need a retirement plan as much as, if not more than, your employees. Some plans offer the employer significant tax deductions for the business. Plans that feature employee pretax contributions give employees a break on their current income taxes. And when you consider that all investment growth on tax-qualified plans accumulates on a tax-deferred basis, you'll wonder why you hadn't set up a plan sooner—for all of you.

> "Attracting and keeping the best and brightest requires not just competitive salaries, but attractive benefits as well."

What to Consider First

Over the years, the federal government has developed a variety of tax-qualified retirement plans to encourage savings. You may already be familiar with some of the more popular ones, such as IRAs, HR-10 plans, or Keogh plans. Although requirements for each plan vary, all offer some form of tax deductions and tax-deferred growth.

Before reading about the basic plans, ask yourself the following:

Benefit objective: Do you want to make the plan a substantial part of employee compensation, add another business deduction, or offer yourself and/or your employees a convenient way to set money aside? Are you looking for a way to reward yourself, your top employees, or everyone?

Your contributions: How much can you contribute for yourself? Your employees? Can you commit to the same contribution each year, no matter how the practice performs?

Income/cash flow: Does your practice produce reasonably stable revenue each year, or do your profits fluctuate significantly?

Employee contributions: Do you want employees to make contributions? Do you have a few highly compensated employees?

Paperwork: What's your tolerance for paperwork? How much can you afford to spend on set-up, reporting, filing, or consulting fees? Do you have a capable accountant who can handle a few simple forms?

Keep these issues in mind as you read the following section. The figure on page 42 can help you make a preliminary decision about which plan best suits your needs.

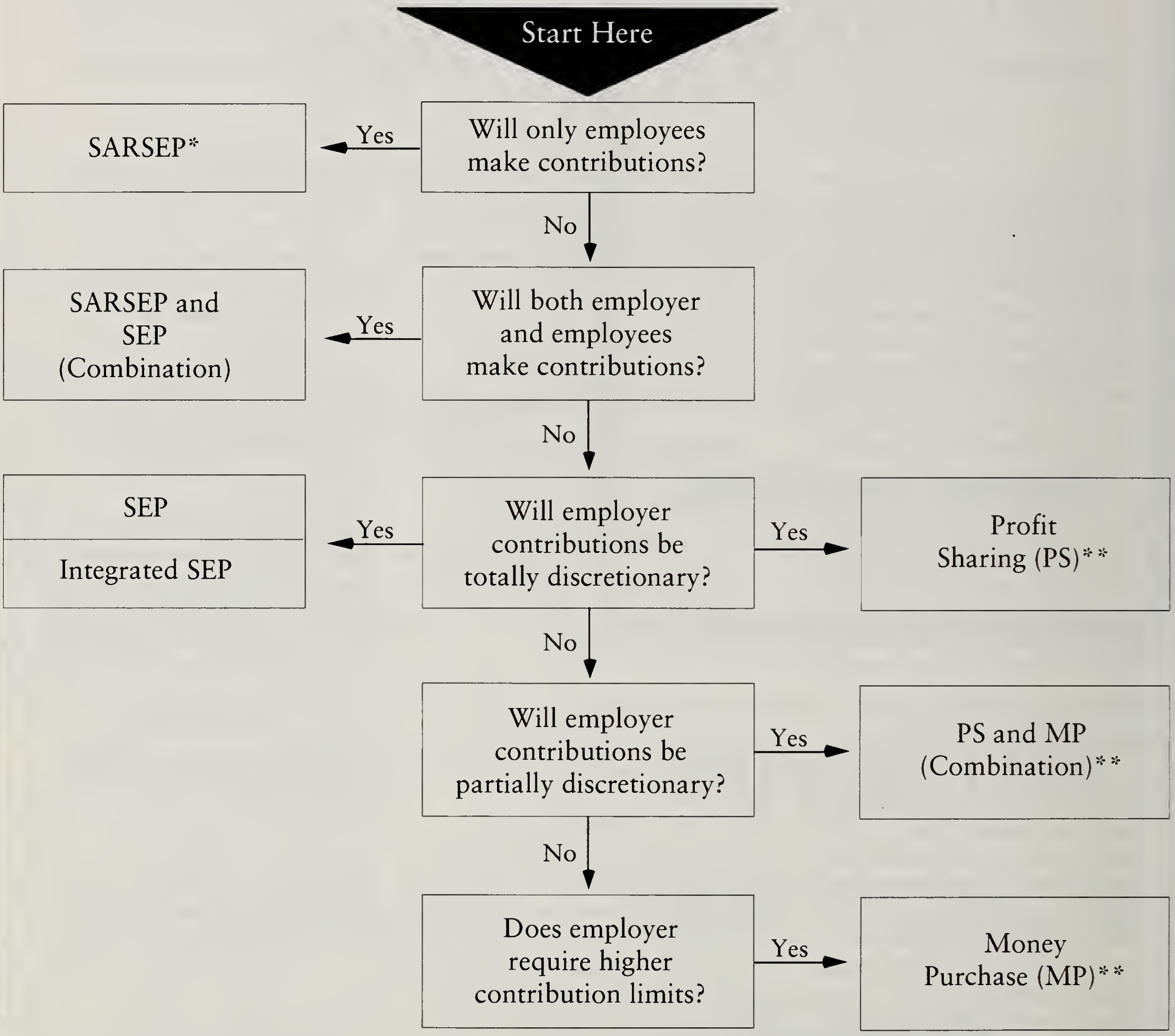
Retirement Plan Options

When people hear the term "pension plan," they often think of what is technically called a defined benefit plan. That is, an employer-sponsored and funded retirement plan that will pay a specific benefit when employees retire. Not all plans operate that way. Another category of plans, called defined contribution plans, simply establish the amount of the contribution made by an employer, its employees, or both. Examples are profit-sharing plans, 401(k) plans, money purchase plans, and Simplified Employee Pension plans (SEPs).

Defined contribution plans are usually much easier to set up, finance, and maintain. Most of them are also more flexible, since contributions often can vary from year to year depending on the business's profitability. Consequently, they've become a popular choice for small, medium, and large practices alike.

Certain kinds of plans were designed to meet the needs of physi-

Simplified Retirement Plan Decision Tree


Start Here
Will only employees make contributions?
Yes
SARSEP*
No
Will both employer and employees make contributions?
Yes
SARSEP and SEP (Combination)
No
Will employer contributions be totally discretionary?
Yes
SEP
Integrated SEP
Yes
Profit Sharing (PS)**
No
Will employer contributions be partially discretionary?
Yes
PS and MP (Combination)**
No
Does employer require higher contribution limits?
Yes
Money Purchase (MP)**

* 401(k) for companies with more than 25 eligible employees.
** Plan may be integrated with Social Security.

cians in small practices. They feature reduced paperwork and stress simplicity; they're easy to set up, easy to understand. Physicians may find the following plans of particular interest. (Note: "Employer contributions" refer to those contributions the business makes on behalf of its employees. "Employee contributions" refer to contributions employees make on their own behalf.)

Simplified Employee Pensions

SEP-IRA

Description: Individual retirement accounts (IRAs) funded entirely by the employer on behalf of employees. No fixed annual contribution requirement; employer can skip a year, depending on profits. May be adopted by sole proprietors, partnerships, and incorporated businesses, including Subchapter S corporations.

Employer contributions: Discretionary. Zero percent to 15 percent of employee's earned income up to $30,000 a year. The same percentage must be contributed on behalf of all eligible employees (unless the formula is integrated with Social Security—see description of integrated SEP below), but the percentage can vary from year to year.*

Employee contributions: None.†

Paperwork: Set-up and ongoing administration requires minimal paperwork. No annual IRS 5500 reporting forms or summary plan descriptions are required.

Advantages: Easy, fast, inexpensive to establish and administer. All contributions are tax-deductible for the business but are not included as current taxable income for owner or employees.

Integrated SEP

Description: This plan works just like a standard SEP-IRA with one important difference: you can make a larger contribution to higher-paid employees. Since lower-paid employees get a proportionately higher percentage of Social Security benefits, you can make up some of the difference when calculating SEP contributions for higher-paid employees. In many cases, a 3 percent contribution will be required for all employees as part of the integration formula.

Advantages: It's a simple, cost-effective way to show your appreciation to your most important employees.

SARSEP-IRA

Description: For practices with 25 or fewer eligible employees. At least 50 percent of eligible employees must participate. Through payroll deductions, employees make pretax contributions to an IRA, lowering gross taxable income. May be adopted by sole proprietors, partnerships, and incorporated businesses, including Subchapter S corporations, but not available to tax-exempt organizations or government entities.

Employer contributions: None required, unless plan is top heavy. (A SARSEP is considered top heavy if the aggregate contributions of key employees exceed 60 percent of the aggregate contributions for all employees. The IRS has definitions for key employees that must be followed.) If a SEP plan is set up in combination with SARSEP, contributions are 0 percent to 15 percent of employees' earned income up to $30,000 a year. The same percentage must be contributed on behalf of all eligible employees, unless the formula is integrated with Social Security (see integrated SEP, described above). The total for employer and employee contributions may not exceed 15 percent or $30,000.*

Employee contributions: Optional pretax, payroll deductions from 0 percent to 15 percent of compensation, up to $8,728 per year.† (Adjusted annually for increases in the cost of living. This figure is for 1992.) Rules exist to prevent highly compensated individuals from putting a disproportionately higher share of income in a SARSEP than eligible lower-paid employees.

Paperwork: Minimal set-up forms and ongoing administration required. No annual IRS 5500 reporting forms or summary plan descriptions required.

Advantages: Easy set-up, inexpensive, and simple, but with sophistication and appeal of some plans used by larger practices. Can be largely employee funded. Although employees report lower gross income, employer still deducts full salary as business expense. Optional employer contributions are fully deductible. Highly visible, valuable employee benefit.

Other Defined Contribution Plans

In addition to the Simplified Employee Pension plans just discussed, some other options may be of interest. When used by unincorporated businesses, these plans are referred to as HR-10 or Keogh plans. Compared with the SEP options, these plans tend to require more paperwork. However, they may still be attractive to some small physician practices.

Profit sharing

Description: Employer sponsored and funded, contributions may be any amount, equally distributed, subject to IRS limits. Contributions can vary from year to year and are fully deductible as a business expense. (A profit-sharing plan with a salary deferral feature, known as a 401(k), is also available to corporations. Employees may contribute pre-tax dollars to a 401(k) plan.)

Employer contributions: Discretionary. Zero percent to 15 percent of aggregate payroll. For individual participants, the lesser of 25 percent of compensation or $30,000. Same percentage required for employer and all eligible employees. Contributions may be integrated with Social Security, allowing larger contributions for higher-paid employees.*

Employee contributions: None.†

Paperwork: Annual IRA 5500 reporting form required, except for self-employed individuals with no common law employees and plan assets of less than $100,000. Summary plan description and summary annual report are required if the plan covers common law employees.

Advantages: Contributions are flexible and fully tax-deductible. Plan demonstrates concern for employees' retirement needs.

Money purchase

Description: Employer sponsored and funded, money purchase plan allows a higher percentage of income to be set aside than profit-sharing plan. Employer establishes fixed percentage contribution, which may not vary from year to year.

Employer contributions: Required. One percent to 25 percent of compensation, up to $30,000. Percentage contribution set in advance and same percentage required for employer and all eligible employees. Contributions may be integrated with Social Security, allowing larger contributions for higher-paid employees.*

Employee contributions: None.†

Paperwork: Annual IRS 5500 reporting form required, except for self-employed individuals with no common law employees and plan assets of less than $100,000. Summary plan description and summary annual report are required if the plan covers common law employees.

Advantages: Provides high contribution limits and maximum tax deductibility. Demonstrates major commitment to providing for employees' future welfare.

Paired plans

Description: Money purchase and profit sharing combined. Employer pays fixed percentage to money pur-

Table
Investment alternatives

Investment Type	Description	Advantages/Disadvantages
Fixed-Interest Options	Includes fixed-interest options offered by insurance companies and certificates of deposit offered by banks.	Advantages: Provide guarantee of principal and interest. Low risk. Attractive option for conservative investor. Disadvantages: Growth potential limited to credited rate.
Mutual Fund-Based Options	Provided by mutual fund companies or insurance companies through variable annuities. Professionally managed portfolios of stocks, bonds, money market instruments.	Advantages: Professional investment management at relatively low cost. Each fund offers diversification among many securities. Different investment objectives and policies offer opportunity to diversify among asset classes. Attractive options for long-term, growth-oriented investors. Disadvantages: Too many choices may lead to confusion. Funds fluctuate in value.
Individual Securities	Individual stocks, bonds, treasury securities.	Advantages: Provide opportunity to invest in companies selected by participants. Disadvantages: Requires sophisticated investors with time and expertise to select securities. Does not provide same degree of diversification as mutual funds.

chase and optional added contributions to profit-sharing plan. Combined maximum of 25 percent of compensation, or $30,000, whichever is less. Must contribute same percentage to self and employees, although contributions to one of the plans may be integrated with Social Security.

Advantages: Offers maximum business tax deduction with more flexibility than a money purchase plan alone. Boosts employee morale. Eligible employees are guaranteed some retirement benefits with possibility of additional benefits in profitable years.

The decision tree on page 42 may help you analyze your own situation and may show you some alternative plan solutions. These solutions are more appropriate for small practices. Other options are available for larger practices.

Investment Alternatives

Once you've decided what your plan's basic structure will be, you'll have to select the investment options for the contributions. If you've ever investigated retirement plans, you know infinite investment options are available to the plan sponsor. The choices can be dizzying. The table above describes some of the various broad classes of investments available along with some advantages and disadvantages of each.

Some products available to fund retirement plans incorporate more than one type of these investment options, giving the employer increased flexibility. Most investment experts recommend a program that provides at least some diversification—that is, a mix of fixed and growth-oriented investments. The time-tested philosophy of diversification may help reduce the impact of swings in any one asset class. What's more, with investment options to choose from, employees can find the right mix of safety and return to meet their needs. Investors who have more than 10 years before retirement might emphasize growth securities over fixed, guaranteed investments. Those closer to retirement age often focus on safer, income-producing investments. MM

Michael Blake is district manager and Roger Schlader is a registered representative at The Equitable Life Assurance Society in Bloomington, Minnesota. Both specialize in customizing retirement planning strategies for individuals and businesses. (GE-92-144).

Continued

Retirement Plans continued

Footnotes

*Self-employed persons can contribute the same amount as corporations; however, their amount is determined by using adjusted gross earnings, i.e., "net profit" or "net earnings from self-employment" less one-half of their contributions to Social Security as determined on IRS Form 1040 Schedule SE. Equivalent contribution percentages for corporations and self-employed persons have been calculated to make this simple; for example, a self-employed person contributing 13.0435 percent of adjusted net earnings is equivalent to a 15 percent contribution for a common law employee.

†A participant in a SEP, SARSEP, or Keogh plan may still contribute the lesser of $2,000 or 100 percent of compensation to a personal IRA, but this contribution may not be fully tax-deductible, depending on the participant's level of adjusted gross income and the type of tax return filed.

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Dr. Aliza Lifshitz - Los Angeles, California

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Medical Care Accountability

Should Physicians Be Immune?

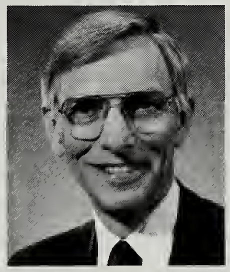
A. Stuart Hanson, M.D.

> *"If I had to reduce my message for management to just a few words, I'd say it all had to do with reducing variation."*
>
> –Edwards Demming

Who are the good doctors? How do you find out? Do you ask your friends, a nurse you know, your insurance plan, the county or state medical society? Is there some way to compare previous results before having heart surgery? Is comparative information available? If it is, can I get it? If not, why not?!

These are the questions our patients and their representatives in business and government have been asking. For the last two decades, issues related to comparative data collection and analysis and public dissemination of that data have been part of the public policy debate in health care. Now, with MinnesotaCare legislation, the wheels have been set in motion to begin collecting standardized, comparable data on the processes and outcomes of selected health care interventions. The information will be public and used to judge effectiveness (quality) and the efficiency (cost) of care.

Two advisory committees authorized by MinnesotaCare will report to the commissioner of health and the Minnesota Department of Health. A data collection advisory committee of 15 members, including six health care providers, will recommend to the commissioner methods of collection, analysis, and dissemination of performance data. The intent is to meet payers' and consumers' needs while protecting appropriate confidentiality of both patient and provider.



"The push for more information persists and is codified in state law."

A second committee of 15 members (including eight health care providers) will recommend a process for adopting practice parameters for common conditions.

These Health Department advisory committees will give physicians and other interested parties opportunity for input. A health analysis unit in the Department of Health is also planned, and the Health Care Commission is recommending to the Legislature that a Quality and Efficiency Resource Center be established through a public-private partnership. Data collected on costs and quality would be available to consumers, providers, employers, health plans, and essentially anyone who asks.

Most likely, high-cost conditions, especially those with perceived variation in delivery performance, will be addressed first. Initially, practice parameters will need approval and dissemination, then methodologies for measuring care processes and outcomes will require development. Standardized methods for cost accounting also must be designed. Data will need to be collected uniformly, presumably at the providers' expense. The analysis process and dissemination procedures will require much thought and discussion before a functional system of accountability can be put in place.

These efforts will attempt to measure and compare the "processes of care" (patterns of practice) and the "outcomes of care" (results) between institutions and individual practitioners. The prospect of releasing individual-specific physician or hospital data has been threatening in the past. Our experience with the release of Medicare mortality data has not been good. Inaccurate, non-validated data have been inappropriately released and used to disadvantage individual physicians and hospitals. Yet, the push for more information persists and is codified in state law!

Thus, we must insist on collecting accurate information and appropriate data that truly assess process and outcomes. We must insist on rigorous use of validity measures to account for the appropriate variation in medical care. We cannot allow such variation to be identified as inappropriate; individuals and institutions should not be labeled as outliers when their patients are simply exhibiting normal variation. Physicians must be intimately involved in analyzing health care data collected to measure performance and used for accountability. The data must be used primarily for improving care. Physicians and hospitals that are not performing up to accepted norms must be given the resources and the opportunity to improve before sanctions of any kind are implemented.

Service industries like health care have not developed the measuring techniques needed to satisfy our customers, but we must find the means to be more accountable for the lives and the resources entrusted to us. We can do no less. MM

People and Places Making Medical News

People

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Ob/Gyn Chair

Edward C. Maeder Jr., M.D., has been elected chair of District VI of the American College of Obstetricians and Gynecologists for a three-year term. The district includes the northern Midwestern states and provinces of Manitoba and Saskatchewan, Canada. For the past three years, Maeder has been vice chair of the district and is a past president of the Minnesota Obstetrical and Gynecological Society. He is also a clinical professor at the University of Minnesota and practices at Park Nicollet Medical Center in Minneapolis.

Pediatric President

Mark E. Nesbit Jr., M.D., professor of pediatrics and head of pediatric oncology-hematology at the University of Minnesota, recently became president of the International Society of Pediatric Oncology based in Zurich, Switzerland. He will serve for three years.

Nesbit has been a member of the university's faculty since 1967 and has been head of the pediatric oncology-hematology division since 1980.

Radiologic Society Officers

The Radiological Society of North America has elected three Minnesotans as officers for 1993. O. Wayne Houser, M.D., of Rochester is president-elect; Joel E. Gray, Ph.D., also of Rochester, is third vice president; and Seymour H. Levitt, M.D., of Minneapolis is liaison for the annual meeting.

Places

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'U' Joining Heart Disease Study

The University of Minnesota and 14 other centers across the United States are starting a new five-year study to see if hormonal therapy can stop or reverse heart disease in women who have gone through menopause. The $40 million study will test synthetic estrogen-progestin pills on women who have suffered heart attacks, undergone balloon angioplasty or bypass surgery for blocked coronary arteries, or have documented blockage of a coronary artery.

"This is the first major study of its kind," said Donald Hunninghake, M.D., a principal investigator and director of the University of Minnesota's Heart Disease Prevention Clinic.

The study will include 2,500 women, who will be randomly assigned to take the hormone pills or placebos every day. Neither the doctors nor the women will know which patients are taking the hormones. The results will be monitored at a coordinating center in case the findings necessitate halting the study.

MCMC Studying New Method of Administering Cancer Drug

An oncologist at Minneapolis Children's Medical Center is a co-principal investigator of a new national study to determine a better method of administering a cancer drug to children and preventing relapse. The drug, 6-mercaptopurine (6MP) is used to treat children who have the most common type of leukemia, acute lymphoblastic leukemia. The study, sponsored by the American Cancer Society, will be conducted in conjunction with researchers at North Dakota State University in Fargo and will involve patients from hospitals in the United States, Canada, and Australia that are members of the Children's Cancer Group. Bruce Bostrom, M.D., from Minneapolis Children's, will coordinate the clinical aspects of the study.

Bostrom and researchers at NDSU hope to find a more accurate and effective method of prescribing 6MP.

HCMC Opens Chemical Health Observation Unit

Hennepin County Medical Center opened in December a new 18-bed Chemical Health Observation Unit for intoxicated people needing medical services. Eighty-four patients were admitted to the new unit in its first five days. The Hennepin County detox center now serves only as an overnight shelter.

"People who are seriously inebriated do need medical monitoring of their vital signs, and some need medication as well, so that is basically what the unit is here to provide," said Dan McLaughlin, HCMC administrator.

Milton Bullock, M.D., director of the Division of Clinical Toxicology and Pharmacology, is the unit's medical director.

Gillette Children's/Courage Center Provide Joint Service

Gillette Children's Hospital and Courage Center have recently completed the first phase of a joint effort to collaborate in providing assistive technology services for children and adults who have disabilities. The joint services will include patient screening and assessment, special projects, and joint outstate consulting. Other services might include equipment applications research and an equipment loan bank that would allow clients to experiment with assistive technology equipment before purchasing it.

"By entering this partnership, Courage Center and Gillette Children's will be able to improve access to assistive technology, maximize limited community resources, and not duplicate services," said David Phillips, executive director of Courage Center. The program will serve children and adults who need corrective communication devices for speaking, powered mobility such as power wheelchairs, and environmental controls such as switches to operate household appliances.

Park Nicollet Expanding Headquarters

Park Nicollet Medical Center reached agreement with the St. Louis Park Economic Development Authority in December to buy 13 acres at Highway 100 and Excelsior Boulevard for a clinic addition and a medical office building. It plans to begin construction in the summer with co-developer Frauenshuh Companies, who will develop retail space.

The development will include a 55,000 square-foot clinic addition and a 50,000 square-foot medical office building, which will replace space the medical center leases. The retail center will include a restaurant and either a movie theater or retail space. Total development costs are estimated at $15 million.

Wound Center Opens in St. Louis Park

The Institute for Reparative Medicine, a multi-disciplinary wound care center, opened recently in the Twin Cities to offer comprehensive diagnosis, treatment, and outpatient rehabilitative therapy to patients suffering from chronic wounds and circulatory problems of the veins and arteries.

The St. Louis Park center is the Twin Cities' first comprehensive outpatient rehabilitation facility specializing in the treatment of wounds and circulatory disorders. Each patient will have a personalized wound care treatment program that could include surgery, physical and occupational therapy, hyperbaric oxygen therapy, drug therapy, nutrition counseling, rehabilitation services, and education programs designed to teach patients how to heal and stay well. Many of the services will be offered on an outpatient basis.

David R. Knighton, M.D., who invented the wound care product Procuren, is the institute's founder. He previously served as director of the Wound Healing and Limb Salvage Clinic at the University of Minnesota Hospital and Clinic and was a professor of surgery. He currently is a clinical associate professor in the university's Department of Surgery.

Design Award Goes to United and Children's Day Surgery Center

The Day Surgery Center of United and Children's hospitals is one of two recently completed architectural projects to receive recognition in the 1992 Design Awards Competition sponsored by Modern Healthcare Magazine.

The center, located across the street from United Hospital in St. Paul, shares top honors with an intensive-care unit addition in Jacksonville, Florida. It was chosen from a field of 132 projects on the basis of nine criteria, including the structure's economy, its harmony with the environment, and its functional utility. The building's organization and its ability to expand easily were also considerations.

Socioeconomics

MinnesotaCare Applications Overwhelming

Interest in the MinnesotaCare program was so overwhelming that the application process became bogged down only two and one-half months into the program. Between October 1 and December 11, the Department of Human Services received 52,500 requests for applications. It had processed 7,201 applications by that time, but another 7,796 were awaiting action. Because it became so time consuming to weed out ineligible applicants—only about 26 percent of those who had applied were eligible—fewer people were enrolled by mid-December than expected, officials said.

"It definitely demonstrates that there is a need out there," said Jeanyne Slettom, a spokesperson for the plan. The department planned to hire new employees to help with the application process.

Blue Plus Puts Limits on Heart Surgery Sites

Blue Plus, the 200,000-member HMO of Minnesota's Blue Cross and Blue Shield, announced January 13 that it is limiting the number of hospitals it will reimburse for costly heart procedures done in nonemergency situations. It chose 10 of 22 hospitals that applied to be part of its quality- and cost-control network, called the Blue Plus Project HealthVision Cardiac Network.

The sites include Abbott Northwestern and University of Minnesota hospitals in Minneapolis, Fairview Southdale in Edina, Methodist Hospital (with the Park Nicollet Heart Center) in St. Louis Park, North Memorial in Robbinsdale, St. Joseph's and United hospitals in St. Paul, St. Mary's Hospital in Duluth, McKennon Hospital in Sioux Falls, South Dakota, and Dakota Hospital in Fargo, North Dakota. The nonemergency procedures include coronary artery bypass, coronary angioplasty, heart catheterization, electrophysiological studies, and heart valve surgery.

Steven Richards, M.D., vice president and medical director of Blue Plus, said the plan is still under negotiation with the Mayo

Clinic in Rochester and LaCrosse Lutheran Hospital and its affiliated Gundersen Clinic in LaCrosse, Wisconsin, which might still become members of the network.

Two Health Care Groups Merge

The Council of Hospital Corporations, a lobbying and information bureau formed in 1974, and Health Employers, Inc., a 20-year provider of labor relations and human resources planning, merged in January to help the industry respond to changes promised by Minnesota's new health care laws. The new group, called the Metropolitan Healthcare Council, will incorporate services of both groups, but it will focus on the changing health care environment created by MinnesotaCare.

The council will be governed by a nine-member board, headed by Terry Finzen, chief executive of Methodist Hospital. The council represents 24 hospitals in the metropolitan area, but it will consider broadening its membership base, according to spokesperson Vic Ellison.

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Patient Stays Shorter in Twin Cities

The use of minimally invasive medical procedures and high-tech drugs and devices in Twin Cities hospitals has led to a decrease in three key measurements of hospital use in 1991—patient discharges, days spent in hospitals, and the average length of stay—according to a report from the Council of Hospital Corporations released in late December. The number of patients discharged dropped 0.2 percent in 1991, while total inpatient hospital days declined 2.9 percent. The average length of stay dropped from 5.52 days in 1990 to 5.37 days in 1991. Meanwhile, the number of outpatients increased 11.7 percent.

The shift to minimally invasive surgery using lasers and laparoscopes has led to significant cost savings. When patients undergo gallbladder surgery through a scope, the hospital stay averages less than two days compared with more than five when the gallbladder is removed by conventional surgery. Surgeons used laparoscopes to remove 2,273 gallbladders during 1991, up 694 percent from 1990. Balloon angioplasties rose 16 percent, shoulder arthroscopy increased 17 percent, and knee arthroscopy climbed nearly 20 percent.

Mayo, Deere & Co. to Create New Clinic

Mayo Clinic, Deere & Co., and the United Auto Workers plan to develop a health care facility in Waterloo, Iowa, to provide a new health care option for John Deere employees and retirees in the Waterloo-Cedar Falls metro area. In June 1991, the groups announced plans to construct their first Family Health Center in Moline, Illinois.

The John Deere Family Health Center of Waterloo will be a family practice facility providing primary care. The staff physicians, employed by John Deere, will work with the Mayo Clinic to ensure appropriate use of diagnostic testing, therapeutic procedures, and local and out-of-area medical referrals.

Deere & Co. and the United Auto Workers have jointly considered the health center concept for two years. UAW represents more than 4,600 John Deere employees in the company's Waterloo operations.

Fairview, Iowa Lutheran End Affiliation

The boards of directors of the Minneapolis-based Fairview Hospital and Healthcare Services and Iowa Lutheran Hospital in Des Moines, Iowa, have dissolved their seven-year affiliation. Changes in the health care system in the past five years and regional differences in health care services delivery were the reasons for the mutual agreement. "This decision allows Fairview to concentrate its health care efforts on the Twin Cities metropolitan area and the surrounding region," said Richard A. Norling, Fairview president and chief executive officer.

Minnesota No. 1 in Services for Diabetics

Minnesota ranks far ahead of other states in the availability of services for diabetics, reported the American Diabetes Association in January. The ranking included outreach programs, number of facilities offering specialized care, Medicaid coverage, health insurance coverage, and other factors. Minnesota scored 355 out of a possible 500, so it still has room for improvement, said Xavier Pi-Sunyer, the association's national president.

Ranked after Minnesota were the District of Columbia (301), California (290), Maine (286), and North Dakota (284). The lowest-ranking state was Oklahoma (109).

Rates, Trends, Data

Cocaine Use Growing

Cocaine use in the Twin Cities by hard-core drug users apparently increased for the second straight year, according to a report from the Minnesota Department of Human Services. The report, which measures patterns in drug abuse based on reports from police, medical examiners, hospital emergency rooms, drug treatment programs, and other sources, said cocaine was mentioned more often in emergency room cases for 1992 than 1991, and cocaine powder and smokable "crack" cocaine accounted for higher percentages of Twin Cities abuse treatment admissions. The report found significant decreases in cocaine use in 1989 and 1990.

Cocaine-related deaths have dropped, especially in Ramsey County. Only one such death was reported in Ramsey County through October, compared with eight in 1991 and four in 1990. In Hennepin County, 19 cocaine-related deaths were reported for 1992 through October, compared with 27 in 1991 and 19 in 1990.

Fewer Pregnancies Ending in Abortion

Fewer pregnancies are ending in abortions in the United States than any time since 1977, reports the Centers for Disease Control and Prevention. In 1990, the latest year for which statistics are available, 1.43 million legal abortions were performed. For every 1,000 live births, there were 344 abortions, down from 346 per 1,000 in 1989. In 1977, the rate was 325 per 1,000.

The actual number of abortions rose 2.4 percent over the 1.39 million performed in 1989, but the ratio decreased because the fertility rate offset those numbers, reports the CDC.

Women most likely to have abortions in 1990 were younger than 25, white, unmarried, and had never had a child.

Medical Research

Six Weeks' Maternity Leave Insufficient

The typical six weeks that employers give for maternity leave to recover from childbirth often is not enough, according to a new study by University of Minnesota physician Dwenda Gjerdingen, M.D. The study of 436 first-time working mothers in the Twin Cities indicates that symptoms ranging from fatigue to vaginal discomfort to mental problems can linger for months. Gjerdingen concludes that flexibility on the job after a new mom returns to work is more important than the length of time off.

"I think it's a crime for workplaces to say you have to be back at work in six weeks," said Gjerdingen, associate professor in the University of Minnesota Department of Family Practice and Community Health. In Minnesota, state law requires unpaid leave of six weeks after the birth or adoption of a child for employees of companies with 21 or more workers.

The study examined changes in mothers' physical health during the first year after childbirth. Study participants completed surveys one month after giving birth, then at three, six, nine, and 12 months. One month after giving birth, women had such physical ailments as breast and vaginal discomfort and fatigue, and several symptoms persisted well beyond one month and were often joined by respiratory problems and sexual concerns. Women who were back in the work force mentioned more symptoms of respiratory infections than those who had not yet returned. Women reported the most problems with mental health related to fatigue, loss of sleep, concerns over appearance, and concerns about their babies' illnesses at one month after giving birth and the fewest at 12 months.

The length of a woman's maternity leave didn't seem to affect the type of mental health problems she reported, but women who worked more hours reported more problems. Gjerdingen said the women desired more flexibility and fewer hours when they returned to work.

Hib Vaccines Prove Successful

Hib vaccine has led to a large decline in life-threatening meningitis and other illnesses, report the Minnesota Department of Health and the Centers for Disease Control and Prevention in the January 13 *Journal of the American Medical Association.* "This is one of the most important public health victories of the past decade," said Michael Osterholm, state epidemiologist. About 200 Hib cases were reported in the early 1980s before the first Hib vaccine was introduced in 1985. Last year, Minnesota had only 15 cases.

The CDC reports in the article that Hib cases nationwide have been cut by more than 70 percent, preventing an estimated 10,000 to 16,000 cases in 1991.

Injection Might Treat Muscular Dystrophy

Studies in rats have shown that an injection of new immature muscle cells into the arteries may work to treat muscular dystrophy, reported researchers in the December 20 issue of *Neurology*.

"We're cautiously optimistic about this research, but we still need to do a lot more work," said pediatric neurologist Ann Neumeyer, M.D., at Massachusetts General Hospital in Boston. The goal is to find a way to put healthy new genes into every muscle of the body, possibly via the bloodstream, and to make them produce dystrophin, a critical protein that muscular dystrophy patients are missing.

Although the experiments did not prove that treatments could work in humans, they showed that therapy may work to avoid muscle damage as a result of muscular dystrophy.

AIDS Update

Live Virus Shows Promise as AIDS Vaccine

Researchers at Harvard Medical School successfully vaccinated rhesus monkeys against the monkey form of the AIDS virus using a live vaccine that has proven safe, offering new hope for a successful human vaccine. Researchers thus far had ruled out a live vaccine for humans, believing it would be too dangerous. The researchers report in the December 18 issue of *Science* that more than three years after receiving the vaccine and more than eight months after being exposed to the live AIDS virus, all of the vaccinated monkeys were free of disease.

"The early returns ... are very, very promising," said Dani Bolognesi, an AIDS expert at Duke University. "It could very definitely lead directly to a vaccine, but just as important is that it can tell us what is necessary in order for a vaccine to work."

The vaccine consists of the simian immunodeficiency virus (SIV) minus one key gene called nef. Rhesus monkeys inoculated with this modified form of SIV did not acquire the disease and were later protected when injected with a dosage 10 and even 1,000 times that needed to cause infection. Four unvaccinated monkeys died after receiving the dosage 10 times stronger than that needed to cause infection.

The vaccines for polio, measles, and small pox are also live vaccines. **MM**

EXERCISE

Does Your Heart Good.

American Heart Association

K. James Ehlen, M.D.
Chairman, CEO Medica

Medica Supports Recruitment of Primary Care Physicians

In response to a predicted shortage of primary care physicians in Minnesota, Medica has earmarked $1 million to help recruit those doctors for its participating Medica Choice clinics.

Nearly 5,000 Minnesota physicians participate in Medica, and about 66 percent are primary care physicians.

Medica recognizes that access to care is hampered by a shortage of primary care physicians. The Plan expects its financial assistance to lighten the burden on the primary care network and improve patient service by expanding clinic capacities.

The demand for family physicians, general internists and pediatricians is increasing in response to state and federal plans that stress comprehensive management of total health care including preventive services.

Recruiting funds may be used by Medica Choice physician groups that have a primary care focus: family practice, general internal medicine and pediatrics as well as multi-specialty groups that have a primary care emphasis.

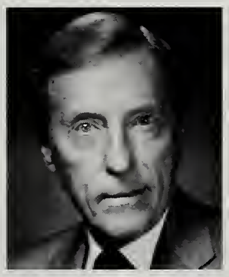
The recruitment fund is the fourth in a series of investments by Medica in community-wide programs that include a demonstration project with the Minnesota Department of Human Services to enhance health care services to Medical Assistance recipients in Hennepin and Dakota counties; corporate sponsorship of the ''Way To Grow'' school-preparedness program in the Powderhorn neighborhood, Minneapolis; and support of the Health Careers/Medical Magnet program in the Minneapolis school system.

Medica's mission is to be the leader in improving the quality, affordability and accessibility of health care.

MEDICA

Helmet Law Would Put Us On the Road to Good Health

Edmund C. Burke, M.D.



"Maybe we can demonstrate the benefits of preventive medicine to the nation."

The Minnesota Health Care Commission is suggesting an innovative approach to containing health care costs. In a report to the Legislature, it proposes that consumers take more responsibility for improving health and saving lives—consequently reducing health care costs—by giving up such things as smoking, poor diets, and sedentary lifestyles. Seventy percent of health care costs in Minnesota are due to preventable illness, the commission claims.

The proposals, such as increasing cigarette and alcohol taxes and stiffening seat belt laws, are sound and, from a health care standpoint, unarguable, but some proposals will meet strong resistance from legislators and the public. One such proposal is a motorcycle helmet law. Minnesota at one time had a helmet law, but the Legislature repealed it in 1976 under pressure from cyclists, who considered it a "freedom of choice" issue; the commission is now calling it a "public health issue." Snowmobilers, motorcyclists, bicyclists, and ATV riders are all at risk of injury, and helmet use would save an estimated $34 million in long-term disability costs for cyclists who suffer brain injuries in crashes each year, says the commission.

A helmet law makes good sense, but without expressed support, it will not pass into law. Gov. Arne Carlson will decide this month whether to support the Health Care Commission's "behavior modification" proposals, but he is likely to side with the Minnesota Motorcycle Riders Association on the helmet issue. According to his press secretary, Cyndy Brucato, he believes helmet laws are "an area government should not be involved in."

We must rally behind the commission and let our legislators know we support the helmet law. If we outdo pressure from bikers, maybe our state Legislature will reverse the 1976 decision. Motorcyclists certainly can't argue that we're singling them out—Minnesota has already passed laws requiring seat belt use and infant car seats, as well as other preventive measures, such as immunization laws.

Sen. Linda Berglin and Rep. Lee Greenfield, Minneapolis DFLers who are sponsoring bills to carry out the commission's recommendations, said in a Minneapolis-based *Star Tribune* article in late January that they had not decided whether to include the helmet proposal in the cost-containment bill. However, Berglin said she is "much more sympathetic" toward requiring helmets than she has been in the past.

In addition to mandating helmet use, the state Legislature should require all cyclists to pass a motorcycle drivers safety course and carry health and accident insurance. Currently, Minnesota law requires a drivers safety course and helmets for cyclists under age 18.

Those who disagree with helmet laws argue that education is more effective than laws for preventing injury and death, and cyclists have spent $6 million on safety programs since 1983, according to the Minnesota Motorcycle Riders Association. In their support, the state Department of Public Safety says motorcycle deaths dropped from 73 in 1983 to 40 in 1991, and injuries from 2,678 to 1,357. But helmets could lessen the impact of injuries, according to a study published in the March 25, 1992, *Journal of the American Medical Association*, which shows that helmets reduce permanent head injury disability from nonfatal crashes.

A Massachusetts physician points out in a recent *JAMA* commentary that for the past century, the medical profession has rallied almost exclusively under the banner of curative medicine, but prevention and health promotion would be cheaper. "What does it cost to eat prudently, not to smoke cigarettes, to get regular and sufficient exercise, to obtain regular age-related prophylactic preventive tests?" asks Alexander Leaf, M.D., in the February 3 issue. Fortunately, preventive medicine is slowly taking hold in Minnesota—maybe we can demonstrate its benefits to the nation.

As authors of the *JAMA* study on helmet use point out, the acceptability of motorcycle helmet laws is not universal, but the scientific basis for such laws to prevent and reduce head injury is sound. Let's rally behind the Health Care Commission in support of preventive medicine and the measures it has proposed. **MM**

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Park Nicollet Responds to Change with Some of Its Own

Minnesota Medicine interviews Charles L. Jacobson, M.D.

The health care system in Minnesota has undergone drastic change in recent years, with providers consolidating into larger and larger groups in response to calls to control costs and improve quality. Park Nicollet Medical Center has been in the forefront of efforts to create larger, more cost-efficient provider organizations, with new alliances on many fronts. "The result will be a dramatic improvement in cost-effective, quality health care," says Park Nicollet President and Chief Executive Officer Charles Jacobson, M.D., in the following interview.

Park Nicollet announced last year that it entered an affiliation agreement with Methodist Hospital, creating a vertically integrated hospital/clinic care system unique in the Twin Cities, according to officials at the medical center. Also in 1992, it announced participation in the GroupCare Consortium, which was chosen to provide health care services for the Business Health Care Action Group, a coalition of 14 large employers in the Twin Cities area. Such systems as the consortium, which includes Park Nicollet, MedCenters, Group Health, and the Mayo Clinic, will soon be standard players in health care, says Jacobson. "We are likely to see two or three systems in a city, with some competition," he said in a Hospital News *article this fall.*

Jacobson is also on the steering committee of The Institute for Clinical Systems Integration, an affiliation of the same providers as the GroupCare Consortium, with goals to implement quality improvement and appropriateness guidelines and to measure patient care outcomes.

Jacobson, who became president and CEO in August 1992, is also a clinical professor in endocrinology and metabolism at the University of Minnesota Medical School. He joined Park Nicollet in 1974 as a consultant in endocrinology and most recently was director of managed care, an area he developed for the organization. He is a member of the MedCenters Health Plan Board of Directors and has served in a variety of management roles for Methodist Hospital in St. Louis Park.

Charles L. Jacobson, M.D.

"Patient care is very complex and is changing almost constantly."

Minnesota Medicine: Dr. Jacobson, in August you became president and CEO of Park Nicollet Medical Center. Before that, you directed the medical center's managed care program. How did you happen to move into management? A lot of physicians shy away from this area of expertise.

Jacobson: We are never quite sure where our lives will lead us. I have always been interested in how we might do things better, whether it's rebuilding an old car or managing a health care facility. Early in my career as a physician at Park Nicollet, I was interested in how we could do a better job of providing quality health care to our patients. When it became obvious that Park Nicollet needed to look at ways to improve cost-effectiveness, I was pleased to work on decreasing costs and maintaining the quality and value of health care services.

Minnesota Medicine: Did you take any courses in management or do anything to advance your expertise in this area?

Jacobson: I've had the privilege of being around very creative people at Park Nicollet, including physician leaders and administrative managers who have helped me in my career. Additionally, I have taken extensive management courses through the Medical Group Management Association, and I am starting the third year of a master's program in leadership through the Humphrey Institute at the University of Minnesota.

The Managed Care Evolution

Minnesota Medicine: Park Nicollet utilizes managed care. How has managed care evolved at your clinic?

Jacobson: The goal of managed care is to decrease costs, maintain or improve quality, and improve the value of health care provision in the community. When those of us in health care started trying to manage care in the late '70s, we were really examining why patients are in our hospitals and how we can effectively or more effectively care for them outside the hospital. Many changes followed, such as short-stay surgery and home health programs; we have found many ways to shorten hospital stays while not particularly interfering with the practicing physician. However, over the past three or four years, our emphasis has changed. Managed care is more than a peripheral means of controlling costs. Now we are looking at the *process* of providing care. Managed care really encompasses all the operations of an organization.

The Park Nicollet-Methodist Affiliation

Minnesota Medicine: Park Nicollet is part of several alliances formed during the past year. One that may have great impact on the medical community is the affiliation of Park Nicollet and Methodist Hospital. How did that came about, and what does it mean for the future?

Jacobson: We at Park Nicollet are very excited about our affiliation with Methodist Hospital. In our search for ways to maintain quality and improve the process of care, we began looking at our long-standing relationship with Methodist. It became clear to both organizations that the key to reducing costs and improving quality was to bring our groups closer together by vertically integrating. As an example, before we considered affiliation, we found ourselves discussing which group should own an MRI machine—profitable technology. We concluded that the community would not benefit from both organizations spending a large amount of money on MRI technology. For the community, it was preferable that we integrate and purchase the MRI machine together. Integrating our organizations in any number of areas reduces duplication of services and offers better value to the patient.

> "Physicians must help shape the future of health care, not just react to it."

The GroupCare Consortium

Minnesota Medicine: Park Nicollet is also part of the GroupCare Consortium with Group Health, MedCenters, and the Mayo Clinic. Please explain how and why the GroupCare Consortium was formed.

Jacobson: Fourteen large businesses in the Twin Cities area decided it was time to look for a new way to provide health care to their employees and formed the Business Health Care Action Group. They wanted to improve the communication between providers and businesses, as well as providers and patients. They wanted quality care for their employees and value for their health care dollar. Documented outcomes data was a critical issue.

This fit perfectly with what Park Nicollet was already doing. Together with MedCenters, Group Health, and the Mayo Clinic, we formed the GroupCare Consortium to respond to the businesses' needs and requests. Working through the consortium, we believe we can deliver the consistent, high-quality, high-value health care the employers' group is seeking.

Minnesota Medicine: How does the GroupCare Consortium plan to jointly provide care?

Jacobson: Each GroupCare Consortium member will continue to operate as a separate organization. Action group employees will be offered the option of receiving their care at Park Nicollet, Group Health, or a MedCenters affiliate clinic. Mayo will be used on a referral basis when appropriate.

Each consortium member is also part of The Institute for Clinical Systems Integration, and as such will implement care guidelines to reduce any variation in care and increase quality.

The Institute for Clinical Systems Integration

Minnesota Medicine: As you mentioned, The Institute for Clinical Systems Integration also includes Park Nicollet, Group Health, MedCenters, and the Mayo Clinic. You are on the steering committee for this group. What are its goals?

Jacobson: The mission for the institute is to help member organizations become living examples of continued improvement in quality and value in health care. The group will set up protocols, guidelines, and methodologies that improve the quality and decrease the costs of health care. We plan to develop automated clinical information systems to measure health care outcomes and create practice guidelines. Our nonprofit institute, which we believe is the first of its kind, will have access to data from the hundreds of thousands of patients in our integrated care delivery network. These large numbers allow us to do research that is more statistically valid than the research we could do alone. We'll be measuring the outcomes of medical practice from both a quality of care and financial perspective.

Physicians know patient care is very complex and is changing almost constantly. Guidelines for care must be continually updated and evaluated and must specify how they will be implemented in each organization.

Minnesota Medicine: The process sounds complicated.

Jacobson: It's a major undertaking, especially considering all the guidelines that have been written in this country and put on our bookshelves. Implementing guidelines in a way that works is a tremendous task.

We believe we will be successful because the leaders and physicians of each organization are involved in guideline development, and the leaders will be responsible for guideline implementation in their own organizations.

Minnesota Medicine: What are some examples of the type of guidelines the institute plans to implement?

Jacobson: The institute believes that guidelines should be focused on general conditions and must deal with both effectiveness and appropriateness. The first guidelines being developed will address management of urinary tract infections and breast mass.

The Move to Integrated Networks

Minnesota Medicine: Park Nicollet has led the charge to create larger and larger integrated networks to compete in today's health care marketplace. What kind of strategies will smaller practices have to adopt to survive?

Jacobson: There is definitely a market trend toward large, integrated health care systems. I believe it is important that all physicians become partners in care systems, including a role in governance and operations management. Physicians and other health care professionals must help shape the future of health care, not just react to it.

Minnesota Medicine: Is this highly competitive environment leading to better, more cost-effective patient care?

Jacobson: We believe it must. If we in health care can reduce variation in care through guidelines, can purchase and use technology more efficiently, and can measure and document clinical outcomes and continuously improve processes, I believe the result will be a dramatic improvement in cost-effective, quality health care. MM

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Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

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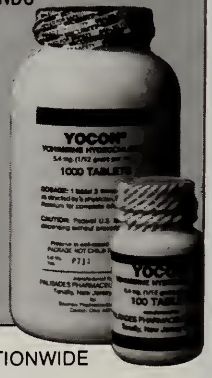
Rev. 1/85



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The Good Doctor Heals with Kindness

Richard B. Weinberg, M.D.

I had been dreading the call all day. I was in the library when my pager sounded and, as I walked to the wall phone, I had an ominous premonition. It was my brother. "They found abnormal lymph tissue on the chest x-ray," he said. "What does it mean?" Struck with an upwelling of nausea, I sagged against the wall. Healthy, active, he had gone for the x-ray at my urging, after complaining of fevers and strange chest pains for over a month. "Well, it could be lots of different things...," I began, reassuring him; but I knew. Like my grandparents and sister before him, my brother had lymphoma.

There was much to do. I made phone calls, contacted friends, arranged for a referral to a specialist in his city. I flew down to be with him before his diagnostic thoracotomy. It was lymphoma. A particularly aggressive variety. Together we called home to deliver the bleak news, and the next day I picked up my bewildered and frightened parents at the airport and drove them to the hospital. Together we sat as the oncologists explained the treatment options. When I was not at my brother's bedside, I spent my time in the medical library reviewing the literature and on the phone seeking opinions from prominent experts. In the end my brother chose a new, but promising, chemotherapy protocol at a nearby university hospital and, after the first uneventful cycle, I returned home to work. But every week we would talk on the telephone about his progress, the side effects, his law school classes, life. He achieved a remission that lasted for the summer, and happiness returned to his voice. We made plans for a trip. But then the fevers returned, and he began an inexorable decline, sickened even more by repeated cycles of "salvage therapy." His phone calls came more often and more urgent, and it became progressively harder for me to encourage him and give him hope.

That was when the pain began. I first noticed it as an empty, hollow sensation in my chest at the end of the day. I dealt with it by ignoring it. But as the days passed, the pain became more insistent. It was gnawing and pressing, like a balloon expanding inside my chest. Heartburn, I told myself, and stopped off at the GI clinic to grab some H2 blockers; but they provided no relief. Stress, I told myself; but neither exercise, nor alcohol, nor attempts to relax made any difference. The pain became constant and kept me awake at night. There had to be an explanation.

Illustration by Linda Frichtel

Was it angina? A cardiology fellow sneaked me into the heart station one evening and after hours of EKGs, treadmills, and echos, pronounced my heart remarkably normal. The pain grew more intense. Maybe atypical pleurisy? I got a chest x-ray in the emergency room and brought it to Radiology. "Lung fields are normal ... no effusions ... mediastinum's a bit generous, but it's probably a normal variant," the radiologist on call rattled off before he turned back to his board. The mediastinum is *generous*?! No! It couldn't be lymphoma! That night I palpated the lymph nodes in my neck, axilla, and groin. They did feel a bit prominent. Soon they became tender, and as the days passed I was certain they were growing larger. Meanwhile the pain became unbearable. I became obsessed with finding a diagnosis. I prepared a blood smear on myself, and peering down the microscope I saw my death: smudge cells! Leukemia! I grew faint. What will I do? I can't die now! How will I tell my parents? As I panicked, my eye latched onto the tube of blood. A grey top. Fluoride. Metabolic poison. Kills white cells. Pseudo-smudge cells!

In the cold sweat of temporary redemption, I finally accepted the limits of self-diagnosis. I needed a doctor. But who? I knew as well as any informed layperson the names of the experts at our university hospital. But credentials could be deceptive. I had seen them at the bedside, listened to them at conferences, read their clinic notes, and weighed their advice on the wards. So who was the best doctor for my problem? The society cardiologist who couldn't read a cardiogram? The hot-shot oncologist whose housestaff nickname was "mad dog"? The famous pulmonologist who was never in town? If I made the wrong choice, I knew my symptoms would be zealously pursued with painful tests that, if they didn't disclose a diagnosis, would leave me more miserable than ever. Who? Then suddenly it was clear. Of course! Dr. Davidson!

Dr. Davidson was not a rising star in the Department of Medicine. "I admit he's a very good teacher," the chief of medicine was often heard to say, "but he just isn't publishing." "Of course he isn't," one wanted to scream back, "He's out there on the wards every day, like you should be!" And Dr. Davidson certainly tried to be "academic." He was always talking excitedly about his review on gonococcal infections in the inner city. "It's just about finished," he'd cheerfully tell us on rounds, "and it's certainly going to raise some eyebrows." But it never seemed to appear in print. The housestaff didn't care; we loved him.

He was an internist, and at the bedside he shined. It was Dr. Davidson who discovered that an elderly lady admitted three times in one month with near fatal status asthmaticus had recently purchased a new parakeet—and was deathly allergic to it. It was Dr. Davidson who saved a man with tearing chest pain from emergency angiography by pointing out that he had ruptured his pectoralis from an over-enthusiastic weight-lifting session. When the dean came down with a serious viral pneumonia, it was Dr. Davidson who sat outside his door and fended off the well-meaning department chiefs who descended in multitudes to give conflicting orders to the housestaff. "The dean just needs to be left alone, and he will get better," he insisted. And he did. And mysteriously, whenever it all became overwhelming and you started to think about quitting medicine, it was Dr. Davidson's arm that came down over your shoulder. "Hey. Let's go down to the doctor's dining room for a cup of coffee," he'd say. You went, and he'd listen, and then it didn't seem so bad.

Surely, I thought, if something's wrong, Dr. Davidson will know. I found him on the wards, told him that I hadn't been feeling well, and asked if he would look me over. He suggested that we go to his office. It was disorienting to be sitting on the other side of the examining table, but Dr. Davidson quickly put me at ease, and soon I was pouring out the whole sorry tale of my chest pain and my brother's illness. It took quite a while. During his physical examination he poured over every inch of my body, felt for lymph nodes, and listened intently to my heart. When he finished, he looked at my chest x-ray and then scribbled a note in my chart. I dressed and, with my heart pounding, turned to face him.

"Do we need any tests?"

"No, I'd say you've done a pretty good job of that," he said with a smile.

"Then you know what's wrong?"

"Yes, I think I do."

"Is it lymphoma?" I choked out, fearing the worst.

"No, your lymph nodes feel normal to me, and given the way you've been poking at them, it's no wonder they're a bit tender."

"My heart ..."

"Your heart is fine."

"Ulcer ...?"

"No."

"Are you telling me that I'm imagining all of this?"

"No. The pain is real."

"Then what's wrong with me? What's causing the pain?" I demanded.

"You have heartache."

"Heartache?" The word struck me like a slap in the face.

"Yes. Your brother is seriously ill. You are his best friend, and you've served as his personal physician as well. You've helped guide him to the best treatment, comforted him during the tough times, and given him the strength to go on. You've had to be strong for him and for your family. Now things don't look so good, you know the prognosis of his condition, and you fear what is to come. But no one really understands how much it all hurts you. You love your brother very much, and so you feel his pain in your heart."

Tears streamed down my cheeks. I could not speak.

"It's okay to have Heartache," Dr. Davidson continued. "It's the price you pay for loving someone. And not many of us do as good a job of it as you're doing now, you know." The famous arm came gently down across my shoulder. "Now you keep right on being a good brother and a good doctor," he said, offering me a handkerchief. He sat with me, and after some time I composed myself.

"Thank you," was all I could say.

"You're certainly welcome. We'll talk about things again soon, right? Now, how about a cup of coffee in the doctor's dining room?"

My chest pain eased throughout the afternoon and by evening was gone. Like in the tale of Rumpelstiltskin, once Dr. Davidson had called the name of the demon, its power was vanquished. And although afterwards the heartache returned now and then, I no longer feared it. My brother died three months later after a valiant struggle, and I gave the eulogy at his funeral. I finished my fellowship and found a faculty position in another city. I later heard that Dr. Davidson—his magnum opus never completed—was denied tenure and had left the university for another job. I also heard that he was still teaching housestaff and was happy.

In The Oath we swear "... to consider dear to me as my parents, him who taught me this art..."—and to assist our fellow physicians with every kindness should misfortune befall them. And so it should be. For we carry a special burden: We have learned of the pain that disease brings to mankind and know that often we are powerless to stop it. And when the thin veneer we erect to protect ourselves from this knowledge is shattered, demons that lurk in our minds are unleashed to terrify our souls. In such times we cannot heal ourselves. Rather, in such times, as the Good Doctor Davidson knew, we must heal one another. MM

Richard Weinberg is with the Bowman Gray School of Medicine in Winston-Salem, North Carolina. The essay is reproduced with permission from: Weinberg RB. The laying on of hands. Ann Intern Med 1992;117:38-4.

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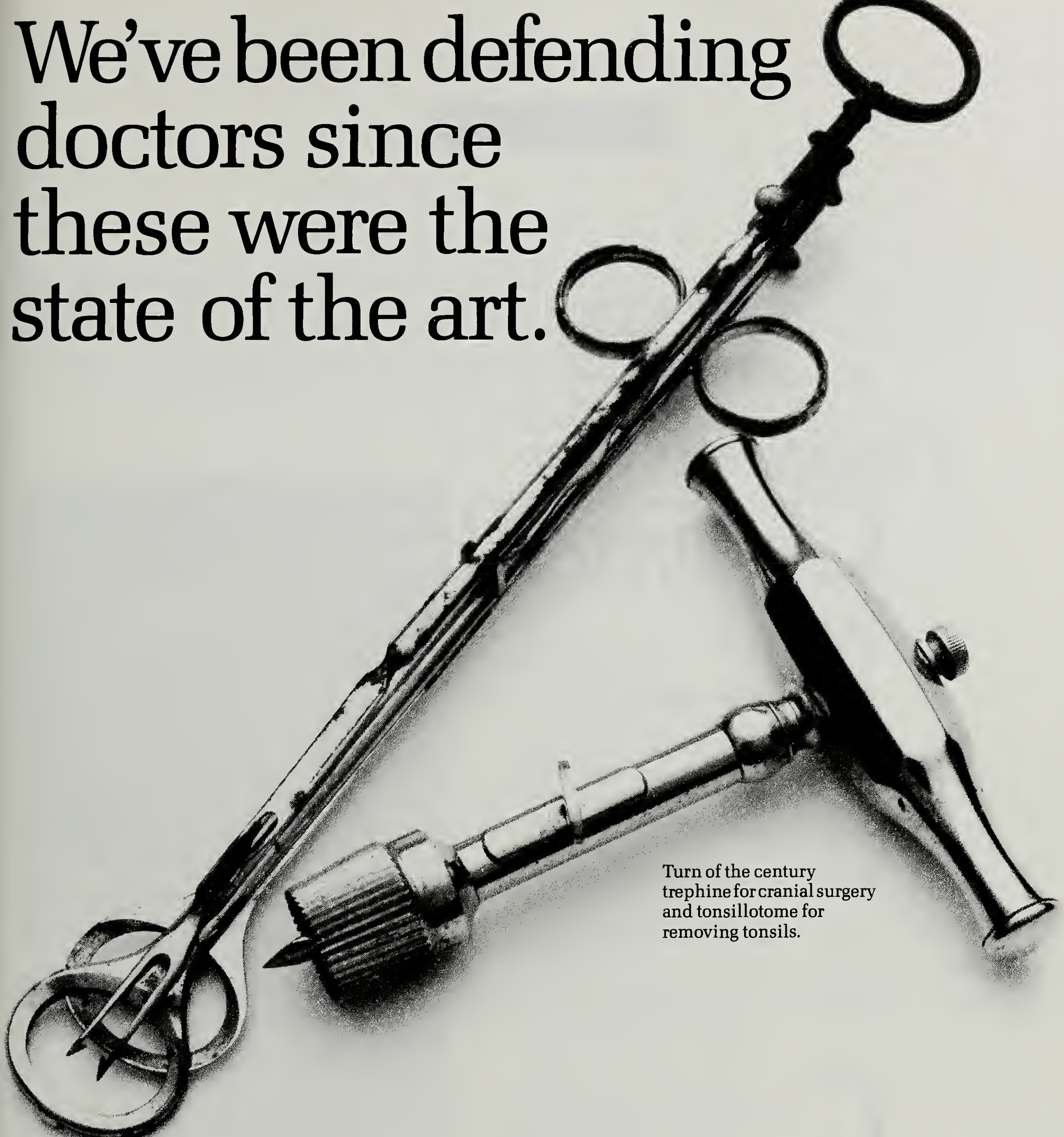

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COVER STORY

Physicians Offer Chronic Pain Relief

You know these patients.

He has come to your office almost every month for a year complaining of the same back spasms. You've prescribed medication and physical therapy, but he claims the pain is constant.

Her migraine pain sends her to the emergency room every few weeks. Nothing you've suggested or prescribed seems to offer her relief.

Chronic pain patients keep coming back, and so does their pain. A physician's options seem limited. Workups are negative, but the pain is still there and the pain is real. Treating it with narcotics may run the risk of addiction. Encouraging the patient to live with the pain can sound like a brush-off. It's tempting to believe that some patients just have low pain tolerances and are loud complainers. It can sometimes even be tempting to hope they'll go away or find another doctor.

By Pamela Hill Nettleton

Many physicians understand this frustration, including those who specialize in treating chronic pain. Loran Pilling, M.D., director of the Pilling Pain Clinic at HealthEast Midway Hospital in St. Paul, is trained in both internal medicine and psychiatry and has been studying and treating pain for more than 30 years.

"Out of frustration and the need to help, the physician may at times prescribe more narcotics, further rest, surgical intervention, or the use of paraphernalia such as cervical collars, braces, crutches, and canes," says Pilling. He believes that by prescribing such treatments, the physician can actually worsen the patient's condition.

ILLUSTRATIONS BY CARL WESLEY

Physicians may delay referral to a pain center or clinic for evaluation or treatment for many months—or sometimes years—while repeating previously ineffective tests or treatments, hoping for better results.

Pain is the enemy, and physicians are taught to fight it, so their stubborn efforts are understandable, even when they seem ineffectual. But the war on chronic pain need not be futile. Today, the battle is being waged on a new front and with an expanded arsenal. Pain treatment centers with widely varying approaches are springing up inside and outside of hospital settings as chronic pain gains greater recognition and attention from the medical community. New treatments, such as epidural and patient-controlled analgesia, are emerging, and mechanisms for measuring results of treatment are being put into place. Responsible credentialing and certification for practitioners are accompanying this growth in the field, while knowledge about controlling certain types of pain, particularly that caused by cancer, is expanding nationwide.

"Treating chronic pain is a frustrating thing for primary care physicians. If they know of a choice that can bring results, I think they'll use it."

Matthew Monsein, M.D.

Treatments to manage chronic pain, once little understood and sometimes distrusted, are becoming part of mainstream medicine's armamentarium.

Chronic vs. Acute Pain

Acute pain is short-term and typically has little effect on the patient, beyond the experience of the pain itself. Chronic pain lasts for an extended period of time and may be a permanent condition.

Some physicians say that for pain to be chronic, it must persist for many weeks. Some say six months, others say more than a year. Experts do agree, however, that the most important part of the definition is not so much the duration of the pain, but the effects the pain is having on the patient's work, relationships, and self-esteem. At some point, the pain becomes its own disease, separate from the original cause of the pain, and is then called "chronic pain syndrome."

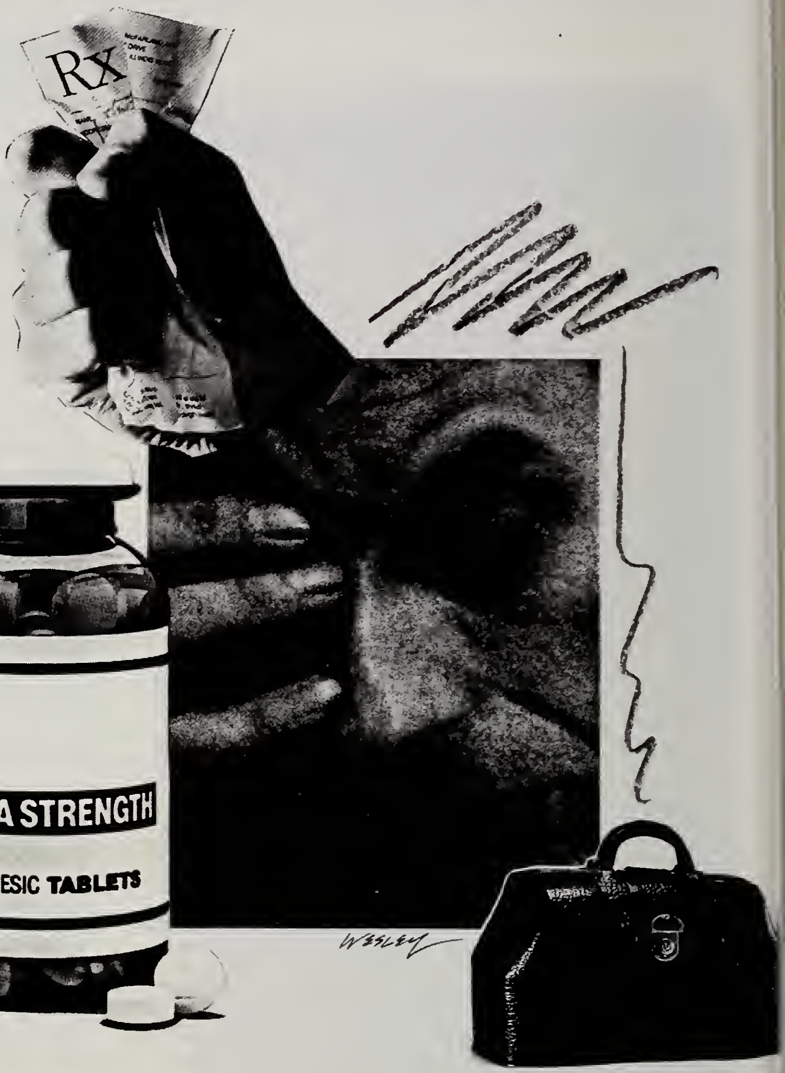
Chronic Pain Syndrome

When a patient persistently complains of pain, even after surgery, medication, therapy, and other traditional treatment methods have been exhausted, the patient can feel blamed for not adhering to treatments, or is shamed for having "imaginary" discomfort. Family and friends wish the patient would just "get on with it" and recover. Employers can't help but wonder whether the patient is exaggerating the pain or inventing it altogether as a way of avoiding work. And the frustrated physician may feel he or she has run out of treatment alternatives.

Inactivity and depression, both of which typically accompany the chronic pain syndrome, reduce the production of endorphins in the body and fixate the patient's attention on the pain. This may partly explain why many patients suffering from chronic pain syndrome describe a level of pain beyond what clinical findings would indicate and may make it difficult for physicians to evaluate and treat the condition effectively.

The lack of knowledge and understanding of chronic pain syndrome among physicians and the general public is perhaps the main reason chronic pain goes untreated, according to Pilling. "This condition is at the point alcoholism was 20 or 30 years ago," he says. "Many people don't recognize it as a disease but rather see it as a weakness."

> "One of our first steps is to get the patient off addicting pain medications."
>
> Loran Pilling, M.D.



Most chronic pain patients have musculoskeletal problems, such as back pain. Chronic headaches are another common ailment among this patient group, as are shingles, diabetic neuropathy, reflex sympathetic dystrophy, causalgia, and abdominal pain (due to Crohn's disease and pancreatitis).

Pilling says that chronic pain syndrome is a natural response that even emotionally stable people may have after being exposed to the stress of prolonged pain. "It is a totally overwhelming condition. Almost everyone with

]

chronic pain will eventually develop the complications of this syndrome," he says.

Family practitioner Matthew Monsein, M.D., has been medical director of the Pain Management Program of Sister Kenny Institute, affiliated with Abbott Northwestern Hospital in Minneapolis, for eight years and has worked with the program for 11 years.

"What any one person experiences as pain is actually part of an incredibly complex open system. All parts of a person's life—physical, spiritual, emotional, their environment, their self-esteem, their work, their family—contribute. If you do psychological testing, they sometimes have elevations indicating they may be poor copers, perhaps with hypochondriac tendencies. Some of them may have an exaggerated response to injury. On the other hand, many are simply individuals with many life stresses and problems, plus real chronic pain." Although chronic pain patients are sometimes labeled malingerers, Monsein says for the most part, "they are sincere people, struggling to deal with their pain."

Miles Belgrade, M.D., medical director and cofounder of the Hennepin County Medical Center Pain Clinic, doesn't believe a particular type of personality leads people to become chronic pain patients. "I think anybody exposed to the right kind of injury and the right kind of environment around that injury could develop the same features of chronic pain syndrome. Every person has the capacity to become that patient. Some people—chemical dependents, victims of abuse—are at higher risk for developing that kind of syndrome."

A 'New' Choice: Referral

Primary care physicians may have seemed reluctant to refer patients to pain centers in the past simply because little was known about their methods and treatment approaches. This is changing. As more and more hospitals and communities open pain centers, physicians and consumers are gaining awareness about chronic pain treatment. Primary care physicians, employers, and insurance carriers now have many providers and treatment philosophies from which to choose, and the approaches continue to expand.

"Our focus is not on pain relief, but on improvement of function."

MATTHEW MONSEIN, M.D.

James Struve, M.D., medical director of the Fairview Riverside Pain Rehabilitation Program, agrees that the field of pain management is growing and diverging. "There is inhospital management of pain. There is the hospice management of pain. There is the subacute and then pre-chronic management of pain—areas that are really exploding with new technologies. And then there is chronic pain management. Pain management has to grow—our 'customers' want pain relief."

"We train people to rethink what pain means to them. We help with the day-to-day management of people who have and always will have chronic pain problems."

MILES BELGRADE, M.D.

Monsein says he's seen a marked increase in referrals during the last decade. "We've almost tripled in size since 1984. I think the referrals are increasing as physicians' knowledge of our existence increases. Treating chronic pain is a frustrating thing for primary care physicians, and if they know of a choice that can bring results, I think they'll use it.

"The real challenge today for primary physicians is to become able to discriminate between each pain care setting and to determine which patient would do best in which setting," he says.

Holistic Approaches

Controversy exists in the chronic pain field between proponents of various approaches. Many pain programs are based either on a holistic or a somatic model, and some programs borrow ideas from each other. Clinics that take a holistic approach to chronic pain strive to help patients come to terms with their ongoing discomfort and learn to live with daily pain. Their focus is on functional restoration, as opposed to trying to treat the pain. The Pilling Pain Clinic, the Pain Management Program of Sister Kenny Institute, United Hospital's Pain Center, the Fairview Riverside Pain Rehabilitation Program, and the Pain Management Center at Fairview Southdale Hospital are examples of this model.

Typically, after patients in these types of programs have undergone a thorough intake assessment,

Getting Aggressive with Cancer Pain

Many cancer patients express a greater fear of pain than of dying. Many consider euthanasia or assisted suicide to escape the pain without understanding that their pain might well be controlled.

The Minnesota Cancer Pain Initiative is a grassroots movement promoting better understanding of cancer pain management through a statewide consortium of physicians, nurses, pharmacists, and others. "We're working hard to improve everybody's understanding of this, trying to dispel the myths associated with the narcotic treatment of cancer pain through education and research," says Miles Belgrade, chair of the initiative's Physician Education Committee and medical director of the Hennepin County Medical Center Pain Clinic.

Hospice programs nationally are increasingly accepting the philosophy that cancer pain can be virtually eliminated and that it should be managed aggressively—a view espoused by internationally renowned palliative care expert Balfour Mount, who will be speaking in the Twin Cities March 11 and 12 at an annual palliative care conference sponsored by HealthEast Hospice.

The Virginia Piper Cancer Institute pain program at Abbott Northwestern Hospital in Minneapolis also uses a formalized multi-disciplinary group to provide pain consultations for cancer patients.

Eric Anderson, M.D., is Abbott Northwestern's medical director of Hospice and one of 12 physicians who offer consultations through the institute's pain program. He received specialized chronic pain treatment education in Oxford, England, and has years of experience with cancer patients.

"We surveyed physicians, nurses, clergy, and social workers at Abbott Northwestern and found that there was general agreement and sympathy with the principles of vigorous treatment of cancer pain, but that the level of knowledge was not always terribly high," says Anderson. To fill the knowledge gap, the Virginia Piper Cancer Institute began an educational program that led to the creation of the pain consultation team.

"Our overall aim is not to acquire a lot of patients, but to teach nurses and physicians a little more about pain management," says Anderson. "We really do hope to put ourselves out of business."

Results of consultations often include converting one type of medication being used to another that may be more appropriate. It's not that physicians prescribe inappropriate medications, says Anderson, they simply aren't as familiar with the drugs used specifically for cancer patients.

"There's a long-held belief that any physician can manage pain," says Anderson. "This belief is often not borne out by clinical experience. The assessment of pain is sometimes straightforward, but to achieve rapid, satisfactory pain control sometimes requires special expertise."

Anderson says that about 75 percent to 80 percent of all cancer patients are in pain. The "cure" rate after a consultation from the team is 90 percent. "Only 5 percent to 10 percent have significant pain after being adequately managed, and we're hoping to find ways to reduce that small percentage, as well."

–PHN

they come to the clinic for eight hours every weekday for three or four weeks, recreating the regular work schedule. They receive counseling and education and are taught therapeutic exercises and relaxation techniques to help them manage their pain. Pain and stress management, along with family education, are often provided to help patients understand their pain. Some patients are admitted as inpatients, but most typically, they attend as day patients. Monthly progress evaluations are usually provided as follow-up.

These programs often shun the use of any pain medication. "One of our first steps is to get the patient off addicting pain medications," Pilling says. "We don't want to get people into the habit of solving problems with pills. Every time you take a pill, it is a reminder of sickness. We don't want people to think like sick people.

> "We realize there are patients we interventional physicians can't do anything for, who benefit greatly from the noninterventional approach."
>
> Lon Lutz, M.D.

We want to encourage wellness."

Another reason Pilling doesn't use pain medication is because of its effect on endorphins, the body's natural pain medication that works by blocking pain signals to the brain. Narcotic pain medications inhibit the function of endorphins. Thus, the more narcotic a patient takes, the less effective endorphins become, decreasing the patient's natural resistance to pain and increasing dependence on the medication.

Pilling believes that iatrogenic complications, such as deconditioning or addiction to pain medications, may result from well-intentioned interventional approaches. "Possibly the more serious complications come from the subtle interaction between the physician and the patient," he says. "When a physician continues to prescribe tests or treat the pain, it can feed into the patient's belief that something has been missed, or that the pain might eventually be cured. This can prevent the patient from moving to the point where he or she can begin to accept the pain and learn to cope with it in a healthy manner."

The United Pain Center at United Hospital in St. Paul takes a "whole-istic" approach, according to Program Director Terry Hegenah. "Pain affects every aspect of people's lives," she says. "It must be addressed in every aspect of their lives, as well."

"Programs like ours," says Monsein, "are oriented toward teaching people about coping and managing pain, managing stress in life, differentiating pain that indicates hurting from pain that indicates harm. We find some patients who like this idea of taking responsibility for themselves, and some who don't. Some prefer the idea of someone else 'fixing' them."

Somatic Approach

Attempts to "fix" the pain are more typical of clinics that tackle pain somatically, intervening with anesthesia and analgesia. Commonly staffed by anesthesiologists, these centers use both emerging and alternative pain control methods, such as anesthetizing ganglions temporarily or permanently by injection, inserting catheters into the spine to dispense medications, combining narcotics in ways primary care physicians don't typically use them in everyday practice, or using acupuncture, acupressure, and chiropractic techniques.

After patients undergo an intake assessment, a treatment program is planned. It may range from basic injections combined with physical therapy, to sophisticated diagnostic and therapeutic procedures to block specific nerves.

The Minnesota Pain Center at HealthEast Bethesda

Hospital in St. Paul is staffed by a group of anesthesiologists, including Lon Lutz, M.D., and Steve Gott, M.D., who have both completed pain fellowships at Mayo Clinic in Rochester and are members of the American College of Pain Medicine. (According to Lutz, the American Board of Anesthesia is in the process of developing certification for this emerging subspecialty.)

"We're starting to get into more sophisticated procedures," says Lutz, who cites as an example implantable drug-infusion systems that place medications directly into the spinal fluid of cancer patients.

"Spinal cord stimulation is another new technique we use for pain not responsive to medications but limited to a certain part of the body," says Lutz. "These are quite similar to TENS [transcutaneous electrical nerve stimulation] units, but are implanted under an x-ray guide into the epidural space on a trial basis. If it works, we can place it subcutaneously with a programmable pulse generator."

Before a treatment method is selected, information is gathered from the patient's primary care physician, and the patient is given a psychological and neurological assessment. Patients must meet rigid criteria to be accepted into the program.

"We realize there are patients we interventional physicians can't do anything for, who benefit greatly from the noninterventional approach," says Lutz. "Certain patients benefit from one approach, others from another."

Unique Approaches

Not all pain programs fall neatly into either a holistic or a somatic bent. As pain management programs grow in number and improve their communication with one another and with physicians across the country, approaches become modified, expanded, and blended.

The Hennepin County Medical Center Pain Clinic in Minneapolis serves patients with neuropathic pain, phantom limb pain, chronic muscular dysfunction pain, and sometimes cancer pain.

"Our program is different from any other pain program," says Belgrade. "We try to take both a somatic and a holistic approach. Our philosophy is that the two cannot be separated. There are almost always significant organic and psychological factors that contribute and cause pain to persist. Both must be identified and treated appropriately."

The HCMC Pain Clinic uses multiple medications, frequently evaluating and altering these combinations for optimal effect. The clinic also uses biofeedback, psychological evaluations, and short-term cognitive therapies along with physical rehabilitation and exercise programs. Acupuncture also may be tried.

Following referral to the pain clinic by a physician, the patient is sent a packet of information with a questionnaire. After returning the questionnaire, the patient meets with a health psychologist for an initial assessment and then undergoes a medical evaluation. At this point, the staff discusses the case and develops a treatment plan.

"We do a more careful job than a primary care physician could or would do of diagnosing the pain process and identifying factors that contribute to it," says Belgrade. "We make an aggressive effort to modify the underlying problems, while maximizing drug and anesthesia therapy and physical therapy.

"We train people to rethink what pain means to them. We help with the day-to-day management of people who have and always will have chronic pain problems."

Reasonable Expectations, Measurable Results

Pain treatment is focused on controlling and managing, rather than curing. Pain patients are seen after the medical model has determined that the pain can't be fixed. Treatment is often symptomatic relief, and patients may need to return periodically.

"If we're lucky," says Belgrade, "we'll find a regimen that works and that the primary physician can maintain. Usually, we follow patients long-term and sometimes for life, offering interventions and constantly modifying them."

"I'm very careful about not claiming to cure," says Sister Kenny's Monsein. "If someone has been to five or six doctors and the pain hasn't gotten better, it's dangerous to make them promises. I tell them we can help lessen their anxiety and depression, we can help them start to feel better about themselves, and if their pain improves at the same time, we won't charge them anything extra. Our focus is not on pain relief, but on improvement of function."

"When a physician continues to prescribe tests or treat the pain, it can feed into the patient's belief that something has been missed, or that the pain might eventually be cured."

LORAN PILLING, M.D.

By its very nature, chronic pain management cannot be measured by cure rate—there truly is no cure. There is, however, relief, which can be measured. The pain itself isn't calibrated, but improvement is marked by a return to work, fewer medications, less significant depression, decreased physical therapy, and reduced dependency on physicians.

The Minnesota Pain Center is implementing an outcome-based data process taken from the Mayo Clinic that measures standardized criteria, such as certain functions, medications, and work status, both before and after treatment.

"Within one to two years," says Lutz, "we should have a pretty good idea of how effective we're being."

The best treatment for chronic pain syndrome, according to many experts, is prevention. Primary physicians treating someone with persistent pain need to be aware of the symptoms of the syndrome—depression, fear, anger, pain inconsistent with the medical findings, dependency on medications or such physical aids as crutches or braces, and physical deconditioning. A personal or family history of chemical abuse or a medical history that would indicate dependence upon physicians are also indicators to consider.

"Some patients like this idea of taking responsibility for themselves, some don't. Some prefer the idea of someone else 'fixing' them."

MATTHEW MONSEIN, M.D.

Elusive Pain, Elusive Treatment

A person's pain threshold is as individual as a fingerprint. A procedure for which one patient may require support, sedation, and much hand-holding, another patient may endure alone over the lunch hour. A traumatic injury may mean only a temporary inconvenience for one patient and may change the life of another.

Knowing when a referral to a chronic pain center is appropriate and then knowing which one to select for a given patient are challenging judgment calls for any primary care physician. Making this decision requires the knowledge a primary care physician has of the patient's history, family, and personality, and it also requires an awareness of the chronic pain resources in the community.

Pain can't be seen, measured, or validated. It is a complex and nebulous experience for both the patient and the physician—but today, more options exist than ever before for the primary care physician seeking pain relief for patients. **MM**

Pamela Hill Nettleton is a free-lance writer, editor, and consultant living in Minneapolis.

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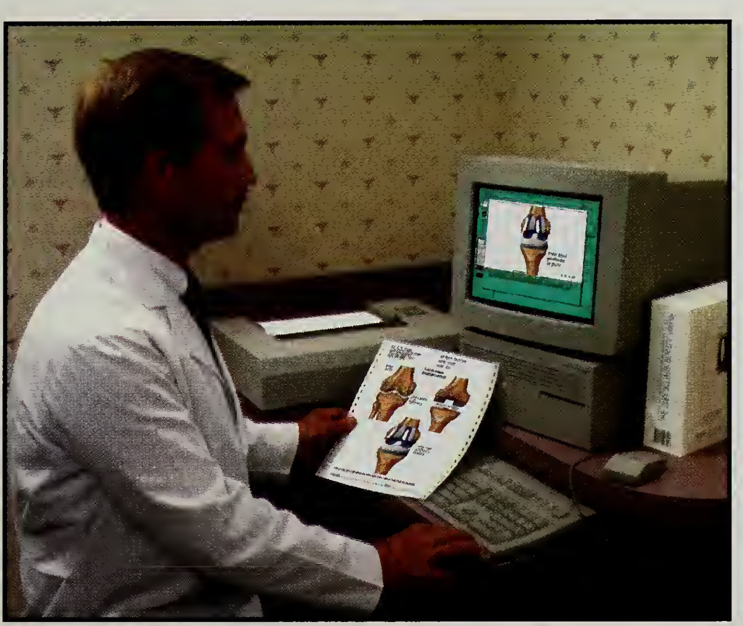

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Special Pricing for Minnesota Medical Association Members

The Anatomy Lesson: Software Puts the Body On Screen

Walter S. Roark and Amy Woodward Parrish

> ***"Examine these limbs, red, black, or white, they are cunning in tendon and nerve. They shall be stript that you may see them."***
>
> –Walt Whitman
> "I Sing the Body Electric"

Imagine you are an orthopedist and your patient, Lisa Hiroshige, was recently injured in a soccer game. She arrives at your office, hobbles into the examination room containing a personal computer, leans her crutches against the wall, and sits as comfortably as she can, considering her leg is in a splint.

You are planning knee surgery to repair a damaged ligament and can't begin without Lisa's signature on an informed consent form, so you are going to explain the surgical procedure using A.D.A.M. (Animated Dissection of Anatomy for Medicine), an interactive multimedia software program of the human anatomy.

You turn on the computer, and an Asian woman about Lisa's age, nicknamed "Eve," appears on the monitor. You use the zoom tool to magnify the knee so that it fills the window, then you click on the "O.R. Studio" button. Using the "Sterilize" tool, you wipe the knee with Betadine, and using "Syringe," you inject anesthetics into the appropriate locations. Using the mouse pointer as a scalpel, you drag it to cut the skin and fat layers, exposing the ligament, and then you draw jagged lines to stimulate rips in the ligaments.

To show how the surgical procedure will go, you bring up a table of contents and choose "Medial Collateral Ligament Repair." This displays a miniature TV set, and a digitized video clip plays on the TV screen with a voice-over you prepared earlier.

Lisa asks a few questions, so you back up the sequence and run part of it again. After you've answered Lisa's questions, you print out color images of the torn ligament before and after surgery together with the text of an informed consent document. Once Lisa has signed it, she's on the road to recovery in the Information Age.

A.D.A.M. is becoming a popular tool for educating patients and future physicians. The CD-ROM program consists of hundreds of overlapping illustrations of the body, starting with the skin and continuing right down to the bone. "No one has ever illustrated anatomy in this kind of detail," says Greg Swayne, a medical illustrator and president of A.D.A.M. Software, Inc., the program's developer. "What we have is the Gray's Anatomy of the 21st century." The company spent three years illustrating the foot and lower leg and then began working its way up the body. Customers can now purchase either the whole body (the head and neck will be released in April) or any of five separate sections.

Adjunct to Anatomy Courses

The study of human anatomy has seen many innovations since Aristotle (384-323 BC) dissected various animals for his treatise on comparative anatomy, and Herophilos and Erasistratos (300-250 BC) dissected human cadavers.

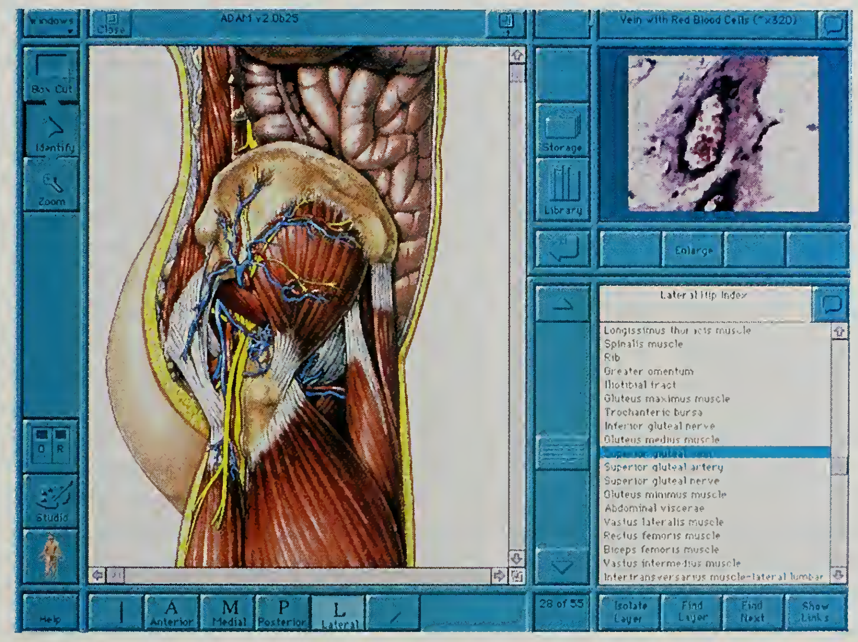
The primary difficulty in studying anatomy is the unforgiving nature of dissection: once a structure has been cut away, it is easily lost from the specimen. (Of course, patients are even more unforgiving of mistakes.) Cadaver dissection is clearly a progressive endeavor, not one that can be merely canceled and begun anew; the process begins with a complete specimen and often does not end until the body is entirely dismembered.

Many educators are beginning to question the traditional reliance on cadaver dissection to teach anatomy. According to Dr. Joan King, professor and chair of anatomy and cellular biology at Tufts University School of Medicine, software programs open the possibility of alternative teaching methods that supplement the use of cadavers.

Creators of the A.D.A.M. program are calling it the "flight simulator" for physicians—allowing medical students to dissect the body in detail on a color monitor and use an animated scalpel to perform surgery exactly as it's done in an operating room. Marketed primarily to medical schools, A.D.A.M. has appeared in 82 U.S. schools as an adjunct to anatomy courses. Educators certainly don't believe such software will lead to the abandonment of practical hands-on anatomical dissection, since the development of motor coordination will always be required for surgery, but computers can complement and enrich traditional medical education. "They open up a host of new learning opportunities," says King.

A.D.A.M. may be particularly practical for the harried medical student trying to cram for the morning's exam. It also has become a useful reference tool for many students. "If we're dissecting a foot, we can dash into the program and see exactly where an artery is supposed to be," says Kathleen Earls, a medical student at Brown University in Providence, Rhode Island.

Recently, A.D.A.M. gained the endorsement of Dr. C. Everett Koop, former U.S. surgeon general. Koop is now chair of the Koop Institute at Dartmouth Medical School, whose mission is to "build a better doctor for the 21st century." In a recent speech, Koop said, "A medical school that doesn't turn out computer-literate graduates will be guilty of providing poor education." He compared it to "a grade-school teacher not letting her kids use pencils a hundred years ago."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Gluteus minimus muscle
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Aid to Anatomical Study

A.D.A.M. addresses many of the traditional difficulties of anatomical education by providing not only a tool for exploration of gross anatomy, but also a digital communications medium for disseminating lessons, comments, automated quizzes, anatomical treatises, and research results. On the colorful display of a personal computer, today's students are encountering not just an "electronic cadaver"; they also find a collection of textbooks, lecture notes, commentaries, bibliographies, surgical simulations, animated progressive pathologies, videos of surgery, and self-paced training.

A.D.A.M. is something of an "anatomy processor," allowing the student to navigate freely through the layers between skin and bone, practicing simple dissections and even simulating surgery in a rudimentary way. This ability to simulate dissection brings a new meaning to the term "medical practice." Dr. James Black of the James A. Haley Veterans Hospital in Tampa, Florida, uses A.D.A.M. to demonstrate procedures to residents the day before surgery. If they don't get the sequence right, he advises them on how to brush up on the procedure further. Students move quickly between analytical and synthetic concepts; they can isolate structures as well as view them in relation to surrounding tissue.

The idea behind A.D.A.M. is hardly new: it's the peel-off-the-layers concept found in the painted acetate overlays used by many encyclopedias. But the program brings some surprising and innovative functions to this approach. It allows students to zoom in on muscles, tendons, and tissues and rotate the image between four perspectives: anterior, posterior, medial, and lateral. The student can specify a structure by name and obtain an isolated or highlighted view, or, conversely, the student can ask for an identifying label by clicking on the structure with the mouse.

The zoom function provides views at various levels of magnification, including a life-size view, in which Adam's or Eve's head alone fills the monitor. The most recent version of "Zoom" acts as a magnifying glass that displays the histology of the selected tissue type.

Adam and Eve are models of normal anatomy, but pathologies can be added in various ways. For example, an animated lesion can be introduced that overlays the normal anatomy, much like a cell in a traditional animated film. Such a lesion can mimic the actual progression of a localized pathology, no matter how complex the behavior. Another way to display pathology is to use a software link from the anatomy to a customized multimedia document that may encompass many pages of text illustrated with color images.

In the Physician's Practice

First marketed just two years ago, the software is now in daily use in physicians' offices across the country—possibly reducing their risk for malpractice. The program helps physicians provide preoperative explanations, especially in conjunction with patient x-rays. It is able to give the patient a clear understanding of the anatomy and corresponding surgical procedure. "My patients have found it an exciting way to explain the anatomy and the pathology of a variety of problems," says Dr. John Starinski of Bangor, Pennsylvania. "This type of software is certainly the wave of the future as we encounter more and more patients who are interested in knowing exactly why things are being prescribed for them and what's going on with their bodies."

Patient education and two-way communication are important components of the physician-patient relationship. Inadequate communication and misunderstandings are often the agents that transform a poor medical outcome into a legal action against a physician, even when quality care was delivered. Before surgery, Dr. Lester Dennis, a podiatrist in Brooklyn, New York, sits patients in front of the computer and reviews their operation. "With an understanding of the procedure, there are fewer unreasonable expectations," he says. "That could limit malpractice."

Many A.D.A.M. users print out consent forms that combine visuals and text to describe a given surgical procedure. After verbally explaining a proposed treatment, the physician gives a copy of the printout to patients to take home and sign, further involving them in decision making and allowing them time and freedom to study proposed treatments and consult with family.

> "A.D.A.M. is the 'flight simulator' for physicians—allowing medical students to dissect the body in detail on a color monitor."

By educating patients and securing their approval, physicians can make significant strides toward reducing their risk to insurers. Physicians have reported that this type of documentation helps form a more complete, clearly defined case file for each patient's treatment history. If litigation should arise, documentation that supports the diagnosis and surgical technique will be a matter of record.

Patient Education

In a low-stress, informal setting, a physician can use A.D.A.M.'s precise anatomical images to teach patients about potential treatments, as well as to illustrate how the healing process works or how the injury occurred.

Physicians at the Minneapolis Sports Medicine Center sometimes use the program to create slides that help patients understand a procedure. "It lays a groundwork that both patients and physicians can relate to and allows us to make presentations that the patient can easily understand," says Dr. Joel Boyd, an orthopedic surgeon at the center. In the case of an arthroscopic meniscectomy, for example, patients can view 3D images of the procedure, including where the surgeon plans to remove cartilage, he says.

A.D.A.M. can also ease the communication process when the subject might otherwise focus on painful reminders. The graphic recreation of a sports-related injury can make a valid point about using caution in a physical fitness routine. "I can take a patient with a sprained ankle into A.D.A.M.'s library and show them an animation of the ligaments expanding, stretching, and tearing apart," says Dr. Stephen Van Pelt, a physician with the Center for Sports Medicine at St. Francis Hospital in San Francisco. Rather than being turned off, patients apparently welcome the straight facts—especially when the format is easily understood.

Says Van Pelt, "I also want to build animations I can put out on videotape, so patients can go home and learn healing exercises."

As an integral part of a routine office visit, A.D.A.M. can reduce fear and put patients at ease. Although patients are becoming more aware of their physical condition and interested generally in health care issues, most still tend to feel awkward about their personal anatomy—particularly about the way medical techniques may affect it. A.D.A.M. can make the process of exploring anatomical details considerably less confusing and uncomfortable.

The Minneapolis Sports Medicine Center uses A.D.A.M. as a tool in the center's surgery waiting room, where patients and their families can explore the program on their own. "It's amazing—every day people sit down and fiddle with the program," says Dr. Donald Quick, research coordinator for the center. When patients are in surgery, family members often view an animated version of the operation on A.D.A.M., he says. "They're curious about the procedure, and A.D.A.M. satisfies that curiosity." MM

Walter Roark is advertising/communications consultant and Amy Woodward Parrish is director of public affairs at A.D.A.M. Software, Inc., in Marietta, Georgia.

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Containing Costs in Minnesota's Health Care System

A Summary of the Minnesota Health Care Commission Report to the Legislature

The Minnesota Health Care Commission has completed its first charge; it has presented the state Legislature with a plan to reduce the rate of growth in health care spending by at least 10 percent a year for the next five years. In a special meeting early last month, the MMA Board of Trustees called the report a "valuable first step toward health care reform," although the board emphasized that many of the recommendations include new and vague concepts, making it difficult to gauge their potential impact on the provision of health care in the state.

Viewing the commission's report, "Containing Costs in Minnesota's Health Care System," as an initial step in the state's health reform efforts, the MMA board made clear its intent to help shape legislation that will be introduced this session (but had not yet been introduced as *Minnesota Medicine* went to press) as a result of the report and voted to concentrate the association's efforts on the following goals to improve the commission's plan:

- support mandatory, universal, and affordable health care;
- work to develop regionally acceptable health care delivery systems, which may include competing integrated service networks or a single ISN in a given region;
- support a public commitment by providers to voluntarily reduce their rate of growth of health care spending by 10 percent per year;
- support appropriate collection, analysis, and release of practice performance data to make the health care system more accountable, and urge the commission to adopt the MMA principles for data collection and analysis;
- support legislation calling for the continuation of the regional coordinating boards and work with each to develop a detailed work plan to address the needs of that region in terms of access, quality, and affordability of health care services;

The Introduction, Key Features, and Guiding Principles of "Containing Costs in Minnesota's Health Care System" outline the commission's plan and are reprinted here. (For a more detailed account of the MMA's response to the report, see this month's President's Letter, page 35, and the February 15 issue of *MinnesotaCare News,* a supplement to the MMA *Monitor.*)

> "The MMA board made clear its intent to help shape legislation that will be introduced this session as a result of the report."

Introduction

The Minnesota Health Care Commission was created by the 1992 HealthRight Act. The commission consists of 25 members representing health care providers, health plans, employers, unions, consumers, and state agencies. Thirteen of the members are appointed by the governor, two consumer representatives are appointed by the Legislature, and 10 members are appointed by trade associations and other organizations.

Cost-containment plan: The 1992 HealthRight Act requires the Minnesota Health Care Commission to submit to the Legislature and the governor a plan for slowing the growth in health care spending by at least 10 percent a year for each of the next five years. During its first six months of existence, the commission has devoted most of its time and effort responding to the statutory mandate to submit a cost-containment plan to the Legislature and the governor in January 1993. The commission's statutory charge also includes broader issues relating to the access, quality, and affordability of health care in Minnesota. The commission will turn to these broader issues during 1993 after the cost-containment plan has been submit-ted and approved through legislation.

The cost-containment plan was developed collaboratively by the stakeholders in the health care system through their representatives on the commission and through openness to community involvement and participation. The plan includes both major, long-term structural change to the health care delivery and financing system and short-term targeted strategies.

The commission took very seriously the statutory charge that the plan reduce the rate of growth in health care spending by at least 10 percent a year for each of the next five years and believes its plan moves as quickly as possible toward achieving this goal. The commission estimates that Minnesotans will spend about $150 million to $200 million less on health care in 1994 as a result of the cost-containment plan. By the end of five years, the commission estimates that Minnesotans will have saved a cumulative total of about $6.9 billion. These estimates will be further refined in the coming months as more data are collected.

The commission is committed to closely monitoring and evaluating the success of the plan in achieving cost-containment goals. If at any time it appears that cost-containment goals will not be realized, the commission is committed to taking corrective action to keep Minnesota on target.

Minnesota's health care system—a tradition of excellence: The commission recognizes that Minnesota is a leading state in terms of the quality and efficiency of its health care system and the proportion of Minnesotans who have access to health coverage. The commission is committed to ensuring that Minnesota continues to show leadership through continuous improvements in the health care system.

ERISA: The commission recognizes the relevance of the federal ERISA (Employee Retirement Income Security Act) law to Minnesota's health care reform efforts. ERISA limits the ability of states to regulate the health benefit plans of employers, particularly large employers and group purchasers that "self-insure" their health benefit plans (they cover the entire cost of health coverage for their employees or enrolled members rather than purchasing insurance to cover these costs). The cost-containment plan is designed to be attractive to self-insured purchasers and promote voluntary participation, thereby reducing the significance of the ERISA issue. Even though the commission and its committees spent a great deal of time analyzing and discussing ERISA issues, they are not discussed in the report. Various state laws have been challenged on the basis that the laws were preempted by ERISA. The state of Minnesota has already faced one lawsuit, and more challenges are likely. Because of the risk that public statements from a state entity assessing the ERISA impact of a particular proposal might ultimately be offered as evidence in a future legal challenge to the proposal, ERISA issues are not analyzed or discussed further in this report.

Long-term care: Long-term care costs are not currently included in the commission's statutory charge. The commission is aware of the substantial and growing expenditures associated with long-term care. Although long-term care is not a part of the overall cost-containment plan, the commission intends to monitor the costs and trends of long-term care along with other components of the system.

The definition of "price": The word "price" is used throughout this report to mean the actual amount paid (after discounts or other adjustments) by the ultimate purchaser to buy health coverage and health care services. The word "price" is used in this manner to differentiate between health plans' costs of paying for health care services for insured individuals and the cost to the purchaser of buying coverage from a health plan.

The definition of "health plan": The term "health plan" is used throughout this report to mean a company that sells health insurance or another form of health care coverage. "Health plan" includes health insurance companies, health maintenance organizations (HMOs), nonprofit health service plans such as Blue Cross and Blue Shield, health carriers, and other organizations that are licensed by the state to offer health care coverage.

Key Features

Under the cost-containment plan, the commissioner of health will set an annual limit on the rate of growth in health care spending and will implement programs to achieve compliance with the limits. The plan includes health care reforms that will reduce costs and enhance quality through a more effective competitive marketplace. However, the entire health care system will be subject to overall limits and regulatory controls that will prevent excessive increases in costs. The major features of the plan are:

> "The commission estimates Minnesotans will have saved about $6.9 billion by the end of five years."

Integrated Service Networks: The plan uses incentives to encourage the development of competing Integrated Service Networks (ISNs) that are accountable for the cost and quality of their services. ISNs will be responsible for providing the full array of health care services (from routine primary and preventive care to acute, inpatient hospital care) for a fixed price for the purchaser, thus creating incentives for the participating providers and health plans to become more efficient. The development of ISNs will also facilitate competition because the quality and price of the ISN "product" can be more easily compared than services provided in fragmented nonsystems of independent providers.

Limits on growth: The plan uses global limits to protect consumers from excessive growth in health care costs without micromanaging provider and health plan budgets. The commissioner of health will establish an annual limit on the rate of growth of all public and private health care spending for Minnesota residents that will ensure that the projected rate of growth will be reduced by at least 10 percent a year for each of the next five years.

Payment systems: The global limits on growth will be enforced by the commissioner of health through payment system reforms. The limits will be enforced differently for ISN and non-ISN health care services. Each ISN will be subject only to an overall limit on growth. Non-ISN services will be regulated through an all-payer system (in which multiple payers and health plans use a single payment system) that will ensure that overall growth in expenditures for non-ISN services does not exceed the growth limits established by the state.

A balance of competition and collaboration: The plan uses incentives to prompt changes in the marketplace so that ISNs will begin competing with each other to provide better quality services at reduced prices to purchasers and consumers. Competition will be facilitated by the collection and distribution of comparative data on the price and quality of each ISN. In circumstances where competition is likely to produce inefficiency or excess capacity, the plan facilitates managed collaboration of providers and networks. Competition and collaboration are balanced to produce the best possible environment for Minnesota consumers.

Purchasing reform: Opportunities for small groups to join together through public and private pooling mechanisms will be enhanced and facilitated.

Technology: The Health Planning Advisory Committee will evaluate selected technologies for safety, efficacy, health outcomes, and cost-effectiveness. The technology assessment will be used by providers, health plans, employers and other purchasers, consumers, and ISNs to make decisions about coverage and appropriate use of technology. Because ISNs are accountable for controlling their costs and are subject to limits on growth, they bear the risk if they do not make appropriate, cost-effective decisions about technology. It is anticipated that regulatory controls will be necessary to control the diffusion and use of technology in the regulated system for non-ISN services.

Health care data systems: Comprehensive, coordinated health care data systems will be established to collect, analyze, and disseminate data on quality, price, revenues, and expenditures. Information on health care spending will be used to establish growth limits and evaluate the success of cost-containment strategies. Comparative data on ISN prices and quality will be widely distributed to inform consumers and purchasers and encourage competition. Data on quality will also be used to evaluate and improve the quality of health care throughout the state. A resource center will be established through a collaborative public-private partnership to compile and disseminate information on health care costs and quality and provide related technical assistance to consumers, providers, employers, health plans, and other persons and organizations. The center will offer information and assistance relating to practice parameters, outcomes data and research, technology assessments, the prices and quality of ISNs, purchasing pools for small groups, consumer education, prevention strategies, and other initiatives.

Practice parameters: Practice parameters will be developed and approved to provide guidance to providers regarding the most effective methods of care and treatment. Providers who adhere to approved practice parameters will be protected from malpractice liability.

Prevention: Public and private prevention activities will be enhanced and expanded.

Consumer education: Consumer education programs will be established to empower and encourage consumers to make informed, wise choices about buying and using health care services and to encourage and motivate consumers to adopt healthy lifestyles that will reduce health care costs.

Regional coordinating boards: Regional coordinating boards will provide local input to the commissioner of health and the commission regarding statewide cost-containment programs and will serve as a local connection for statewide activities and a forum for local efforts to improve health care in each region.

Public commitments of health plans and providers to voluntarily reduce growth in costs: Health plans and providers will be challenged to make a public commitment to reduce the rate of growth of their costs and prices by at least 10 percent. Health plans and providers who make the public commitment will submit trend projections and data that will be used to monitor and evaluate their success in meeting the targets. The names of participating providers and plans will be published, and general information on their success in fulfilling the commitment will be distributed to employers, purchasers, and other interested groups.

Special projects with short-term cost savings: In addition to the structural health care system reforms and major cost-containment initiatives that will be implemented under the commission's cost-containment plan, a number of specific, targeted strategies that have the potential for short-term cost savings will be undertaken in areas such as reducing provider fraud, reducing health care advertising, improving immunization programs, reducing tobacco use, and improving birth outcomes.

> "The ultimate goal of the health care system is to provide high-quality health care at an affordable price."

Guiding Principles

Partnership: The commission is a partnership between government and the private sector and between the different stakeholders in the health care system. Since the stakeholders are partners, not antagonists or competitors, striving to achieve a common mission, commission activities will be undertaken in an atmosphere of mutual respect and trust, open communication, and cooperation. The commission will strive to make decisions by consensus.

Shared responsibility: It may well be that the commission's mission cannot be accomplished without some investment or sacrifice by all groups of stakeholders. The responsibility should be distributed equitably among stakeholders.

Incentives: Incentives are preferred over mandates.

The role of government: Private sector roles will be encouraged and facilitated and the role of government minimized. However, some level of governmental involvement is appropriate for the public good.

Balancing competition and regulation: The ultimate goal of the health care system is to provide high-quality health care at an affordable price. Competition can be an effective force for achieving this goal and has some distinct advantages over regulatory approaches. However, competition is not always the most effective strategy. Regulation is appropriate in those circumstances when an uncontrolled competitive environment is not in the best interest of consumers or when governmental involvement is necessary to preserve or promote competition. When pure competition is not in the best interest of consumers, collaboration will be encouraged but with an appropriate level of governmental supervision or regulation to ensure that the collaboration furthers the public good.

Flexibility: The commission's strategic plan will be designed to be easily adapted as conditions change and as new innovation and techniques become available.

Regional variation: To a large degree, health care delivery is a local process and conditions vary significantly from one region of the state to another. Different tools and techniques may be appropriate for different regions. MM

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Physicians Under Surveillance

The National Practitioner Data Bank

Elizabeth A. Snelson, J.D.

The National Practitioner Data Bank, created under the Federal Health Care Quality Improvement Act of 1986,[1] collects negative information about physicians and disperses it to hospitals, HMOs, medical boards, and other entities to use against physicians. The effect on a physician's career can be devastating, yet few physicians are familiar with the Data Bank reporting system. The Data Bank requirements are so complicated that many reporting entities report unnecessarily, to the clear detriment of physicians.

The Health Care Quality Improvement Act (HCQIA) encourages peer review by extending conditional immunity against antitrust liability. Many physicians justifiably fear participating in peer review as a result of huge antitrust judgments against doctors who participated in peer review decisions that curtailed other physicians' practices. The offer of immunity, however, is not without strings attached. To qualify for antitrust protection, the peer review must be conducted fairly, must follow standards of reasonableness, and must meet minimum hearing procedures.

The immunity package also created the National Practitioner Data Bank, a national system for compiling and issuing reports on adverse actions taken against individual physicians, such as peer review actions, licensure restrictions, and malpractice payments. Generally, the underlying objective of the Data Bank is good: to accumulate in a centralized system information that allows licensing boards, hospitals, and other health care entities to restrict physicians whose practices have been found to be substandard. A prime reason for establishing the Data Bank was the fear that bad doctors were able to repeat their offenses and jeopardize patients simply by crossing state lines. Theoretically, with information demonstrating a physician's failings, the physician can be prevented from repeating earlier errors through limitations or denials of license, hospital privileges, and practice opportunities. Unfortunately, Data Bank theory and practice have not proved consistent.

> "Settlements of even the most frivolous claims count as adverse actions taken against physicians and are included in their Data Bank dossiers."

Problems with the Statute

As with other legislation, intent and implementation of the Data Bank legislation diverged, starting with the statute itself. In some situations, the statutory language is too broad, and in others too narrow. The statute misses the mark in each of the three categories of adverse information to be collected under the HCQIA.

Malpractice

To collect information about malpractice, the statute mandates the reporting of all payments made on behalf of a health care practitioner in response to written claims of malpractice. The statute specifies that only *payments* must be reported; waiver of a patient's bill is not reportable because no payment takes place. The statute also requires reporting of all payments made to settle claims, although it acknowledges that cases are often settled even when they lack merit.*[2] Thus, settlements of even the most frivolous claims count as adverse actions taken against physicians and are included in their Data Bank dossiers.

Licensure

The HCQIA requires all state licensing boards, including the Minnesota Board of Medical Practice, to report when they restrict or revoke a physician's license for reasons related to professional competence or professional conduct. Because state statutes vary widely regarding what conduct merits licensure action, physicians in one state may be reported to the Data Bank for something that is not punishable or reportable in another state. A similar lack of uniformity exists for reporting of physician impairment. Some states protect physicians whose chemical dependency, alcoholism, or other impairment has come to the medical board's attention, based on the belief that it is preferable for the practitioner to come forward and obtain help rather than remain underground. If the physician submits to the state's "diversion" program, practicing under strict monitoring and therapy requirements, no disciplinary action is taken and no Data Bank report is filed. Other states categorize monitoring as discipline and report the physician to the Data

---

*"A payment in settlement of a medical malpractice action or claim shall not be construed as creating a presumption that medical malpractice has occurred."[2]

Bank, effectively reducing the number of practitioners willing to come forward and submit to their boards' controls.

The HCQIA license reporting requirements ensure uniformity in one respect: The statute does not require state boards to report when they deny licensure. Only actions against licenses are reportable. Therefore, information that a physician has been denied licensure by every state in the nation could not be obtained by querying the Data Bank.

Professional review actions

The HCQIA requires reporting of adverse professional review actions that restrict privileges or membership if the action:

1) lasts more than 30 days;

2) is based on professional competence or professional conduct that affects or could affect the health or welfare of a patient; and

3) is taken by a hospital, a health care entity that provides health care services and follows a formal peer review process, or a medical society that follows a formal peer review process.

The sheer number of qualifiers built into the statute's complicated definition of reportable professional review action guarantees the use of loopholes in professional review. For example, hospitals are likely to impose 29-day restrictions to avoid filing reports, and health care entities and medical societies may refrain from adopting formal peer review processes to skirt the reporting requirement.

Problems with Implementation

In addition to the problems created by the statutory language are problems arising from the statute's implementation. The Department of Health and Human Services issued regulations on October 17, 1989,[3] behind schedule, and the Data Bank opened September 1, 1990, also behind schedule. Its operations immediately bogged down under the large number of reports and queries filed and the confusion over reporting requirements. In an effort to assist reporting entities, the U.S. Health Resources and Services Administration (HRSA) published its National Practitioner Data Bank Guidebook[4] in 1990 and a Guidebook Supplement[5] in August 1992. Unfortunately, in several instances, the regulations and HRSA publications further confuse matters.

> "Data Bank files are permanent and are not deleted even upon the physician's death."

Consider the following examples and their ramifications for physicians.

Malpractice reporting

Starting with a literal interpretation of the statute, the guidebook states that payments made in the name of a corporation rather than a practitioner are not reportable because the statute mandates reporting of payments made on behalf of individuals. However, the guidebook goes on to create an exception for professional corporations that consist of only one person. Accordingly, payment of a malpractice settlement or judgment for a one-physician corporation must be reported, even if it is in the name of the corporation.

Because of this interpretation, many malpractice settlements have dropped the individual plaintiffs originally named in complaints, leaving corporations to make the payments; because corporations that include more than one physician cannot be reported, no Data Bank report is necessary.

A new interpretation presented in the supplement attempts to limit this loophole. Under the latest interpretation, a person dismissed from a malpractice lawsuit as a condition of settlement must still be reported to the Data Bank. The supplement interprets such a dismissal as a payment on behalf of the practitioner.[5] This interpretation is simplistic in several ways. It does not make clear whether the condition of settlement must be expressed in writing. It also assumes that there is always actual basis for naming a practioner as a malpractice defendant. In reality, any practitioner on the chart or in the vicinity of an alleged incident can be named as a defendant in malpractice litigation. Under the supplement's broad interpretation, dropping the most blameless defendants may be seen as a condition of the settlement rather than as a correction to the complaint.

The supplement attempts to reinforce the statute's provision that a "payment in settlement of a medical malpractice action or claim shall not be construed as creating a presumption that medical malpractice has occurred."[2] The supplement suggests that insurance companies disclose in the reporting form's narrative description section that settlement payment was made despite the insurance company's determination that the claim had no clinical merit.[5] Although insurance companies may be reluctant to document that they are settling claims in the absence of merit, a report without such a disclaimer may imply that the malpractice claim did, indeed, have merit.

Peer review

The supplement contradicts the guidebook on the issue of reporting summary suspensions, but it subsequently conditions its interpretation. The guidebook states that summary suspensions are not reportable unless they are considered professional review actions. Most medical staffs and hospitals define professional review action as only those actions adopted by the hospital board. The supplement first states that summary suspensions should be reported if they have been in effect more than 30 days, even if the hospital board has not yet acted on the matter. However, the supplement states that a summary suspension should be reported only if it is considered a professional review action under the medical staff bylaws. Thus, because bylaws control reportability of summary suspensions, medical staffs should consider amending their bylaws if they do not specify that summary suspensions are professional review actions only after adopted as such by the hospital board.

Operational quirks

The guidebook and the supplement also include instructions for submitting reports to and receiving information from the Data Bank, revealing a convoluted process, even if it functioned as planned. Forms are complicated to complete manually and were not electronically transmittable until late 1992. Even completing a self-query—a physician's request for his or her own file—is so unclear that the Data Bank recommends physicians call its "Helpline" for assistance. (The Data Bank rejects forms with mistakes.)

The form features a narrative description section where the basis for reported action must be stated in 600 characters or less (including punctuation and spaces). Making this more problematic, a non-clinician is typically responsible for determining the clinical reasons for the action and synthesizing a 600-character description of the sometimes sophisticated case. The description is disseminated to all hospitals and health entities requesting information about the physician from the Data Bank.

Coding can lead to further ambiguity and inaccuracy. In addition to the narrative description, a code must be selected from a very limited list of categories for adverse actions. Usually, the same individual who drafts the narrative selects the code, which may or may not be a close match. Consider, for example, the difference between "narcotics violations" and "substance abuse." Narcotics violations could include federal crimes, whereas substance abuse refers to the physician's medical condition.

The lack of clear guidelines and uniform reporting procedures is of serious concern because once a report is filed, it is very difficult to change. Only the reporting entity can file a correction. Physicians have no right to correct misinformation in their Data Bank files. Even if a physician is successful in convincing the reporting entity to submit a correction, the Data Bank will not delete the incorrect report originally submitted. The correction is merely added to the physician's file, leaving the incorrect information to be disseminated and considered by those reviewing the file. If a court overturns action taken by a state board or hospital, the Data Bank will register it as a revision to the original action. Thus, even if the U.S. Supreme Court judges the original adverse action illegal, the information is not deleted from the physician's file. In fact, Data Bank files are permanent and are not deleted even upon the physician's death.

What Can Physicians Do About the Data Bank?

Because physicians have very limited opportunity to correct or dispute the information contained in their Data Bank files, it is important that they take the following steps to prevent the unjustified or inappropriate filing of data:

1. Request that reporting entities adopt procedures to lessen the possibility of unnecessary or inaccurate reports being filed. Medical staffs, HMOs, clinics, and other health care entities, and particularly professional liability insurers, should have procedures in place to ensure that reports are reviewed by clinicians for accuracy and that individuals are granted opportunity to review reports before they are filed.

2. Make sure defense counsel and attorneys assisting in the preparation of procedures understand the Data Bank, its loopholes, and its varying interpretations. Even most lawyers consider the Data Bank's requirements Byzantine.

A physician who is reported can expect to be notified by the Data Bank and should give immediate attention to anything received from the Data Bank.

Conclusion

Complex statutory provisions further complicated by the bureaucracy's interpretations and demands make it very difficult for physicians and reporting entities to comply with Data Bank requirements. Over-reporting in some circumstances, under-reporting in others, and lack of uniformity throughout the system render Data Bank information unreliable. Yet, despite the questionable worth of the system, it cannot be ignored. **MM**

Elizabeth A. Snelson practices law in St. Paul, representing medical staffs, medical societies, and physician interests in Minnesota and across the country.

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2. 42 USC 1320(a).
3. 45 C.F.R. § 60 et seq.
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5. Department of Health and Human Services. National Practitioner Data Bank Guidebook Supplement: current references for Data Bank users (individuals and entities reporting to and querying the Data Bank). Rockville, Maryland: Bureau of Health Professions, U.S. Health Resources and Services Administration, 1992.

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In Memoriam

Jeannette L. Baker, M.D.
Indiana University, 1929
Born: 1899, Died: Sept. 4, 1992

❧

Edward A. Banner, M.D.
Loyola University, 1940
Born: 1912, Died: Nov. 5, 1992

❧

Donald C. Bell, M.D.
University of Minnesota, 1953
Born: 1927, Died: Sept. 29, 1992

❧

Philip D. Benson, M.D.
University of Minnesota, 1977
Born: 1951, Died: Sept. 11, 1992

❧

Lester L. Bissinger, M.D.
University of Minnesota, 1946
Born: 1918, Died: Oct. 20, 1992

❧

David Bloom, M.D.
University of Minnesota, 1955
Born: 1926, Died: July 16, 1992

❧

Heinz H. Bruhl, M.D.
Albert Ludwigs Univ.-Germany, '28
Born: 1901, Died: Dec. 31, 1992

❧

Charles F. Cervenka, M.D.
University of Minnesota, 1927
Born: 1904, Died: Oct. 6, 1992

❧

William T. Charles, M.D.
Medical College of Georgia, 1988
Born: 1952, Died: Dec. 7, 1992

❧

Raymond D. Dickson, M.D.
Harvard University, 1982
Born: 1955, Died: Oct. 17, 1992

❧

Sewell S. Gordon, M.D.
University of Minnesota, 1943
Born: 1916, Died: July 26, 1992

❧

Anna L. Ose Grinvalds, M.D.
Latvia Universitate, 1931
Born: 1897, Died: July 13, 1992

❧

John J. Halbert, M.D.
Rush Medical College, 1940
Born: 1914, Died: Aug. 29, 1992

❧

Philip C. Hedenstrom, M.D.
University of Minnesota, 1946
Born: 1919, Died: Oct. 7, 1992

❧

George W. Janda, M.D.
University of Minnesota, 1948
Born: 1923, Died: June 30, 1992

❧

Norman P. Johnson, M.D.
Harvard University, 1923
Born: 1895, Died: Sept. 7, 1992

❧

Lloyd H. Klefstad, M.D.
Case Western Reserve University, '43
Born: 1916, Died: Dec. 19, 1992

❧

Charles P. Kolars, M.D.
St. Louis University, 1953
Born: 1927, Died: Sept. 9, 1992

❧

Jennings Carmel Kooda, M.D.
University of Minnesota, 1946
Born: 1916, Died: Aug. 7, 1992

❧

Vernon L. Lindberg, M.D.
University of Minnesota, 1937
Born: 1911, Died: Oct. 28, 1992

❧

Francis M. McCartan, M.D.
Creighton University, 1933
Born: 1908, Died: March 11, 1992

❧

Clifford R. Myre, M.D.
University of Minnesota, 1924
Born: 1899, Died: July 28, 1992

❧

Edward N. Nelson, M.D.
University of Cincinnati, 1939
Born: 1912, Died: Dec. 1992

❧

Harvey Nelson, M.D.
University of Minnesota, 1925
Born: 1899, Died: Aug. 29, 1992

❧

Jay R. Olsen, M.D.
Cornell University, 1953
Born: 1925, Died: Aug. 2, 1992

❧

Burton A. Orr, M.D.
University of Minnesota, 1944
Born: 1916, Died: Nov. 3, 1992

❧

Edwin Irvine Parson, M.D.
University of Minnesota, 1938
Born: 1911, Died: Sept. 8, 1992

❧

Harold O. Peterson, M.D.
University of Minnesota, 1935
Born: 1909, Died: July 22, 1992

❧

Philo Harvey Rockwood, M.D.
University of Minnesota, 1944
Born: 1918, Died: Nov. 27, 1992

❧

Howard P. Rome, M.D.
Temple University, 1935
Born: 1910, Died: Oct. 27, 1992

❧

Frederick G. Rosendahl, M.D.
University of Minnesota, 1940
Born: 1913, Died: Dec. 21, 1992

❧

Elmer M. Rusten, M.D.
University of Minnesota, 1929
Born: 1902, Died: Sept. 15, 1992

❧

Peter J. Schultz, M.D.
University of Minnesota, 1932
Born: 1903, Died: Sept. 18, 1992

❧

Thoralf M. Sundt, Jr., M.D.
University of Tennessee, 1959
Born: 1930, Died: Sept. 9, 1992

❧

V. Duane Thysell, M.D.
University of Minnesota, 1934
Born: 1908, Died: Oct. 10, 1992

❧

Harold S. Ulvestad, M.D.
University of Minnesota, 1943
Born: 1911, Died: July 23, 1992

❧

Norval M. Westby, M.D.
University of Nebraska, 1950
Born: 1919, Died: July 9, 1992

❧

Macnider Wetherby, M.D.
University of Minnesota, 1923
Born: 1898, Died: Dec. 25, 1992

❧

Robert B. Wilson, M.D.
University of Illinois, 1933
Born: 1908, Died: Nov. 25, 1992

Adopting a Health Reform Strategy for 1993

A. Stuart Hanson, M.D.

"Then you should say what you mean," the March Hare went on.
"I do," Alice hastily replied; "at least—at least I mean what I say—that's the same thing, you know."

–Lewis Carroll
"Alice's Adventures in Wonderland"

The MMA Board of Trustees outlined its legislative priorities related to health reform for the 1993 legislative session—already well underway—at a special board meeting February 6. As physicians, we must make our decisions based on what is best for our patients and the citizens of Minnesota. Any other criteria simply will not do! That is the position of the MMA leadership and the Board of Trustees. We hope it will be the position of all physicians in Minnesota.

The Minnesota Health Care Commission (MHCC) has presented its report on cost containment to the Legislature (for a summary of the report's key features, see page 27). It is comprehensive and complex. Most of the recommendations are supportable, but it is difficult to know what some of the new concepts mean and what their effect will be.

In approaching the Legislature concerning health reform, the MMA will first reiterate its principles that payment for basic health care should be affordable and universal and that all citizens must demonstrate adequate coverage or the ability to pay for unexpected major health expenditures.

Second, the MMA applauds the MHCC's extensive work and recognizes the innovative and experimental character of the proposed Integrated Service Networks (ISN) concept. ISNs are collaborative networks of providers that deliver a full array of defined health care services to a defined population for a fixed cost (or capitation). The MMA will work with the MHCC to design and implement regionally accepted health care delivery systems, which may include competing ISNs or a single ISN in a region of low population density, such as the districts in Greater Minnesota.

"We must develop local health care systems that truly meet the needs of the people we serve."

A third priority will be support for the MHCC's call for a voluntary commitment by providers to reduce the rate of growth in health care spending by 10 percent in 1993. The MMA will work with the commission and other key groups to facilitate the effort and educate its members about voluntary cost reduction.

Fourth, the MMA will support the collection, analysis, and release of practice performance data to make the health care system more accountable. The MMA will vigorously advocate its data principles requiring accuracy, validity measures, appropriate confidentiality, and peer review of physicians whose data appear to deviate significantly from an approved parameter. Many physicians and hospitals will need technical assistance with submitting appropriate data.

Fifth, the MMA will support legislation to continue the six regional coordinating boards. Each RCB will be asked to develop a detailed work plan addressing the specific needs of that region in terms of access, quality, and affordability of health care services. The MMA will work collaboratively with the RCBs to champion these objectives, and we will continue to support other provider collaboration through regional coordinating organizations as authorized by the MinnesotaCare legislation. Also under the legislation, providers who are planning collaboratively will now be protected from antitrust, as long as their discussions are part of the state's planning process.

The MMA recognizes the MHCC's report, "Containing Costs in Minnesota's Health Care System," as a valuable first step toward health reform. Affordable basic health care for all Minnesotans is the goal. New collaborations between health professionals, hospitals, health plans, purchasers, and consumers will be necessary. In good faith, we must voluntarily commit ourselves and our organizations to reduce the rate of growth in health care spending. We will work to develop the tools and data to demonstrate more accountability for the quality care we deliver. Finally, we must work with others in our regions of the state to develop local health care systems that truly meet the needs of the people we serve. We will know we are successful when all Minnesotans have access to affordable basic health care. MM

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Najarian Resigns as 'U' Surgery Chief

John Najarian, M.D., resigned as chair of the University of Minnesota's Surgery Department February 11 after 25 years in the position. University President Nils Hasselmo said he asked Najarian to resign as a result of failures in managing the ALG transplant drug program. Najarian will continue as head of transplantation and as a surgeon, teacher, and researcher.

Hasselmo decided to conduct an internal investigation into the ALG program in November to determine whether federal rules were violated and whether more than one employee personally profited from the drug's sale. At that time, the university had already ousted the ALG program director, Richard Condie, for pocketing at least $62,000 from selling a drug byproduct (see November *Minnesota Medicine*, page 45). General Counsel Mark Rotenberg said there is no evidence that anyone besides Condie profited from the ALG program.

Hasselmo said that in Najarian's case, "The ALG management problem is the sole issue."

Najarian said he was shocked by Hasselmo's request that he resign, but he expressed desire for a smooth transition. In a letter to the university, he said: "A few weeks ago I turned 65 and just completed 25 years of maintaining the tradition of what I believe is one of the best departments of surgery in the United States. To continue that tradition, it is my judgment that it is time to begin an orderly transition to new leadership."

About 50 faculty members from the surgery department wrote a statement that said under Najarian's guidance, "great advances in surgery and health care have been made. He deserves fair treatment. We disagree with the process leading to his resignation, its haste, and its outcome."

More than 100 surgical residents and fellows from the department drafted a letter and presented it to Hasselmo, urging him to reinstate Najarian. "We want the people of Minnesota to know that the loss of Dr. Najarian's leadership jeopardizes the future of the surgical training program," the letter said.

Hasselmo said there is no chance he will reinstate Najarian. Serious investigations of the ALG program by the FDA and FBI have begun, he said.

RCMS President

Donald S. Asp, M.D., a family practice physician with Bethesda Family Physicians, P.A., has been elected president of the Ramsey County Medical Society. He succeeds urologist J. Randolf Beahrs, M.D., of St. Paul Urologic Surgeons, P.A. Linda E. Bohn, M.D., a radiologist at St. John's Hospital, was voted president-elect of the organization.

Quam Goes to Washington

Lois Quam, who chaired the Minnesota Health Care Access Commission in 1989 and 1990, is spending three months in Washington, D.C., on the staff of the health care task force headed by Hillary Rodham Clinton. The task force is responsible for developing a national health care plan, which it will present to Congress by May 1. Quam is vice president for public sector services at United HealthCare Corp. in Minneapolis.

Children's Hospital of St. Paul Directors

Children's Hospital of St. Paul named Mary Braddock, M.D., M.P.H., medical director of community initiatives. In the newly created position, Braddock will involve Children's Hospital to a greater degree in community-wide health projects for children, including immunization, teen violence, and foster care projects. Braddock, a pediatrician, most recently served as a research associate in the maternal and child health major of the University of Minnesota School of Public Health.

Phillip M. Kibort, M.D., a pediatric gastroenterologist, is the hospital's new medical director of ambulatory services. In his position, Kibort supervises the operations of the outpatient pediatrics clinic and specialty clinics. He has been a staff member at Children's Hospital since 1982 and is also a clinical associate professor at the University of Minnesota's Department of Pediatrics.

Unity Officers

Lex Lawson, M.D., and Robin Crandall, M.D., have assumed posts as 1993 chief and chief-elect of the medical staff at Unity Hospital in Fridley. Lawson, an obstetrician/gynecologist, joined Fridley Ob/Gyn and the Unity medical staff in 1982. He sits on the executive board of the Minneapolis Council of Ob/Gyn and is an associate professor at the University of Minnesota in the Department of Family Practice.

Crandall, an orthopedic surgeon, joined the Unity staff in 1980. He is one of the founding physicians of Northwestern Orthopaedic Surgeons, P.A., with offices in Fridley and Shoreview.

Gillette Chief of Staff

Gillette Children's Hospital in St. Paul elected Linda E. Krach, M.D., chief of staff for 1993-94. Krach, a

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a pediatric physiatrist, joined the hospital in 1981 and is medical director of its rehabilitation program.

Minnesota Limb Length Center

Mark Dahl, M.D., an orthopedic surgeon specializing in limb lengthening and the correction of severe deformities, has opened the Minnesota Limb Length Center, the first in the region that will work exclusively in this field. The program specializes in Ilizarov techniques for limb lengthening, correction of nonhealing fractures, congenital deficiencies, growth plate injuries, and bone deformities.

Dahl will treat children at Gillette Children's Hospital in St. Paul and adults at Fairview Riverside Medical Center in Minneapolis. The two hospitals will collaborate on patient care, education, and research.

Dahl and his teams have completed more than 200 corrections since he introduced the techniques to the Midwest in 1985. The process corrects deformed bones and lengthens them by as much as 15 percent to 30 percent.

JCAHPO Commissioner

The Contact Lens Association of Ophthalmologists has appointed Robert C. Campbell, M.D., as its representative to the Joint Commission on Allied Health Personnel in Ophthalmology, replacing Harold A. Stein, M.D. Campbell is corneal consultant for the Department of Ophthalmology at Park Nicollet Medical Center in Minneapolis, medical director at Park Nicollet Contact Lens Clinic and Research Center, and clinical assistant professor at the University of Minnesota.

Places

'U' Opens Women's and Children's Clinic

The University of Minnesota Department of Obstetrics and Gynecology and the Department of Pediatrics have opened the University Specialists Women's and Children's Clinic located in the Riverside Professional Building across from Augsburg College in Minneapolis. The clinic specializes in obstetrics and gynecology for women and neurologic disorders, asthma, chronic lung problems, genetic counseling, recurrent infections, intestinal diseases, kidney and urological dysfunction, and cardiological abnormalities in children. The clinic also features the new Adolescent Gynecology Center, which focuses on the special gynecological needs of young women.

HealthEast Starts Brain Injury Facility and Wound Care Center

HealthEast Bethesda Lutheran Hospital and Rehabilitation Center of St. Paul has begun a new service called the NeuroBehavioral Brain Injury Program for patients with brain injuries. It's the only long-term rehabilitative and behavioral management service for such patients in the state, according to HealthEast neurologist Charles F. Ormiston, M.D., medical director.

Ormiston said patients admitted to the special 16-bed unit are hospitalized for a period of up to 18 months or longer. They are traumatic or acquired brain-injury survivors who can be reintegrated into the community.

HealthEast will open a Wound Care Center in March, also at the Bethesda Hospital and Rehabilitation Center. The center will treat individuals with wounds that have resisted healing by conventional medical applications. The center will primarily serve individuals with ulcerous wounds from diabetes, vascular insufficiencies, surgery, or disease.

HealthEast named Barbara Davis director of the center. Most recently she was a reimbursement analyst at Blue Cross and Blue Shield of Minnesota. She also has held positions at Riverside Medical Center and United HealthCare Corp.

St. Paul-Ramsey Verified as Level I Trauma Center

The American College of Surgeons has verified St. Paul-Ramsey Medical Center as a Level I trauma center. ACS awards the distinction based on a detailed evaluation of a hospital's trauma services. St. Paul-Ramsey and Hennepin County Medical Center are Minnesota's only ACS-certified Level I trauma centers.

Gillette Rehabilitation Program Accredited

The Comprehensive Inpatient Rehabilitation program at Gillette Children's Hospital in St. Paul has been granted a three-year accreditation from the Commission on Accreditation of Rehabilitation Facilities (CARF). To achieve accreditation, rehabilitation facilities must meet national standards and guidelines specially developed by CARF to measure efficiency, effectiveness, and treatment results.

Socioeconomics

Medica Identifies Roadblocks to Health Care

Access to health care is stymied for some Minnesotans by several barriers that prevent them from seeking proper medical treatment, according to a recent study of Medicaid recipients in Hennepin and Dakota counties. The study, commissioned by the Medica Foundation, found that limited access to transportation and child care and the necessity for language translation and interpretation were key issues. Survey respondents said they missed appointments because no one was available to watch their children or because they didn't have access to a car or public transportation. In addition, understanding health care benefits or a physician's instructions and questions are complicated for Medicaid patients who speak little or no English.

"The diverse cultures within the Medicaid population require that health care coverage reflect that diversity," said David Strand, Medica senior vice president. "If it doesn't, having health care coverage may not mean having access to health care."

United HealthCare Purchases Ohio Health Care

United HealthCare Corp. purchased Western Ohio Health Care Corp., a 185,000-member health plan based in Dayton, Ohio, for $100.1 million cash. "We feel this was a very fair purchase price for an excellent addition to our company's national network of health plans," said William W. McGuire, UHC chair and chief executive officer.

Ads for Prescription Drugs Aimed at Consumers

The advertising of prescription drugs directly to consumers is a growing trend among drug firms. TV commercials for Cardizem CD, a cardiovascular drug for high blood pressure produced by Marion Merrell Dow Inc., for example, suggest that patients ask their doctors about the cost-saving nature of the drug. *Advertising Age* reported in January that direct-to-consumer advertising by drug companies rose from $40 million in 1987 to about $91 million in 1991 and $200 million in 1992.

Patients exposed to advertisements and articles about a drug often pressure their doctors to prescribe the drug, according to David Plocher, M.D., managed health care consultant for Ernst & Young in Minneapolis. "Such requests diminish the doctor's previously unquestioned authority to prescribe the most appropriate drug," he said.

The reason drug commercials typically do not make treatment claims or state the drug's purpose is because, under federal regulations, they would then be required to include a list of warnings and information on side effects.

ACS Supports Mammograms After Age 40

The American Cancer Society recommends that women in their 40s continue to have regular mammograms, despite reports that these women may not benefit from the tests. "We have found more than sufficient data to support the usefulness of mammography as a lifesaving procedure for women 40 to 50 years of age," said one member of the panel after reviewing the available studies.

The cancer society and the National Cancer Center recommend that women in their 40s have mammograms every one to two years and that women in their 50s be tested annually. Studies show that mammograms lower the death rate for older women, but it has been difficult to determine whether they lower the death rate for women in their 40s.

Dentists Charging Patients for AIDS-Protection Costs

Up to 40 percent of dentists in the Twin Cities are charging patients extra fees—about $5 to $12—to cover the cost of protecting themselves and their patients against the spread of AIDS and hepatitis. Most dental insurers say infection protection should be part of a dentist's fixed costs and are refusing to pay the fees.

The Centers for Disease Control and Prevention has required dentists to increase sterilization, decontamination, and use of disposable items, adding an average $21 to the cost of treating each patient seen by a dentist and $17.83 to the cost of treating a patient seen by a dental hygienist, according to the Minnesota Dental Association.

Robert Harder, executive director of the Minnesota Dental Association, said dentists can't simply increase their fees by a given percentage to make up for the cost of infection protection because insurance companies haven't updated their "usual and customary fees." He said the American Dental Association is negotiating with insurance companies to adjust fee payments to compensate for increased costs due to federal and state mandates.

Rates, Trends, Data

Minnesota Women Having Babies Later

The percentage of first-time mothers over age 30 more than doubled in Minnesota, increasing from 9 percent in 1980 to 20 percent in 1990, according to a Minnesota Planning report. Fertility rates decreased drastically for women in their early 20s but remained basically the same for teen-agers.

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Almost 21 percent of births in 1990 were to unmarried women, compared with 11 percent in 1980. Unmarried mothers were more likely to be in their 20s than in their teens. Overall, the rate of births to single women increased from 17.5 per 1,000 in 1980 to 29.9 per 1,000 in 1990. The birth rate declined for married women from 112.1 per 1,000 in 1980 to 97 per 1,000 in 1990.

The average number of children a woman has during her life remained virtually the same, at about 1.9 in both 1980 and 1990.

Compared with 1980, birth rates increased in Minneapolis and St. Paul and declined in many nonmetro areas. Overall, fertility rates are about the same in the Twin Cities as elsewhere in the state.

Minnesota's Infant Mortality Sixth Lowest in Nation

Minnesota's infant mortality rate was the sixth lowest in the nation for 1990, with 7.3 deaths per 1,000 live births, according to a report by the March of Dimes Birth Defects Foundation. It derived state rates from new, federal statistics for 1990, which showed the national infant mortality rate at 9.2 deaths per 1,000 live births.

The District of Columbia had the nation's highest rate, with 20.7 deaths per 1,000 live births, and Maine had the lowest at 6.2. Most of the 10 states with the highest rates were in the Southeast.

Medical Research

Hostile Personality Does Not Lead to Disease

Contrary to popular belief, people with hostile "type A" personalities are not more likely than average people to develop coronary heart disease, according to a study published in the February *Mayo Clinic Proceedings*. Mayo psychiatrist Toshihiko Maruta, co-author of the study, and his colleagues examined 20-year medical histories of 620 general medical patients who completed the Minnesota Multiphasic Personality Inventory between 1962 and 1965. The hostility score was significant in predicting development of heart disease when assessed by itself, but when two simple risk factors, age and sex, were added to the equation, the hostility score lost its predictive value.

Type A behavior is characterized by vigorous voice and psychomotor mannerisms, hard-driving and time-pressured job involvement, competitiveness, impatience, and anger. A person who scores high on the hostility scale tends to see people as dishonest, unsocial, immoral, mean, and believes people should have to suffer for their sins.

Maruta said the researchers did not conclude that hostility has nothing to do with development of heart disease, but rather that a high hostility score on the MMPI is part of being older and male.

Women's Body Shape Tied to Risk of Death

Older women with waist measurements that equal more than 80 percent of their hip measurements face higher overall death rates, according to a study published in the January 27 *Journal of the American Medical Association* by Aaron R. Folsom, M.D., of the School of Public Health, University of Minnesota, and colleagues. Earlier studies showed that these women have a higher likelihood of developing breast and endometrial cancer (see *Minnesota Medicine*, November 1991, page 43).

The authors report on 41,837 Iowa women aged 55 to 69 years. The women responded to a 1986 questionnaire mailed to more than 98,000 women; deaths were tracked through Iowa death certificates and follow-up mailings in 1987 and 1989. After controlling for age, body mass index, smoking, education level, marital status, estrogen use, and alcohol use, each six-inch increase in waist measurement in a woman with 40-inch hips was associated with a 60 percent greater risk of death.

"We recommend that waist/hip ratio be measured along with weight and height as part of routine surveillance and monitoring of risk status in medical practice," said the authors.

Childhood Heart Problems Don't Prevent Normal Life

A study tracking children born with one of three common heart defects shows that these problems are not a barrier to a productive life. The study, published as a supplement to the February issue of *Circulation*, shows that, overall, people who had aortic stenosis, pulmonary stenosis, and ventricular septal defect as children can expect to live normal, fruitful lives.

"We found that the education level of this group was actually higher than the general population," said William H. Weidman, M.D., Mayo pediatric cardiologist and co-author of the study. The employment rate was similar to that of the general population.

The study also addressed concerns about difficulty in obtaining health and life insurance for patients with heart problems. The number of patients who had such insurance was similar to that of the general population, but most were insured as part of a group or under the policy of another adult. "Life expectancy and health are normal for patients with pulmonary stenosis, and they should receive normal policies and premiums," said David J. Driscoll, M.D., Mayo pediatric cardiologist and co-author of the study.

Overall, more than 90 percent of the patients were still living, and few considered themselves to have health problems. Many described their health as excellent.

The study followed 2,400 patients who had been diagnosed with the defects and were originally studied in the 1960s. The patients were located in 1985 for the follow-up study, which provides information for a 25-year period.

Innovations

Experimental Drug Effectively Treats Epilepsy

The experimental anti-epilepsy drug felbamate is highly effective in treating Lennox-Gastaut Syndrome, a severe form of epilepsy in children, as well as some forms of adult epilepsy, report two Minnesota neurologists in the January 7 *New England Journal of Medicine.* Frank Ritter, M.D., a neurologist at the Minnesota Epilepsy Group of United and Children's hospitals in St. Paul, conducted the Twin Cities-based portion of the trial and is chief author of the study.

Few epilepsy medicines help children with Lennox-Gastaut Syndrome, and some make them worse, said Ilo Leppik, M.D., a neurologist with MINCEP Epilepsy Care and the other Minnesota author of the study. The syndrome usually strikes children between 3 and 5 years of age and gradually worsens, with repeated seizures that can cause the victims to pitch forward or drop violently to the floor. Felbamate, which appears to quiet electrical activity in the brain without dampening the senses, controls seizures in the most severe cases of the syndrome, as well as in milder forms of epilepsy, and has fewer side effects than other medicines.

Twenty-five percent of the 73 patients in the study no longer fall because of seizures and 50 percent experience fewer falls; 25 percent did not respond to the drug.

"Children in the study also showed an improvement in their functional ability, which is unusual because most (anti-convulsive) medicine reduces functional abilities," said Ritter. MM

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Medical Director
Eating Disorders Institute

Methodist Hospital, a 426-bed acute care facility located in a western suburb of Minneapolis, is recruiting a medical director for the Eating Disorders Institute. The Eating Disorders Institute consists of a 10-bed inpatient service as well as a large outpatient program. The model used to deliver care is a multidisciplinary team approach. The medical director position is half time and could fit nicely with a part-time practice of pediatrics, family practice, psychiatry or internal medicine. Interested individuals should contact Sue Salzman in the Human Resources Department of Methodist Hospital at 612/932-5052.

METHODIST HOSPITAL

HealthSpan
Office of Medical Education and Research

Calendar of Events

Selected 1993 Seminars

March	
3	**Advanced Trauma Life Support (ATLS) Instructor Course** - United/Children's Conference Center, St. Paul
5 & 6	**Pelviscopic Surgery Including Laparoscopic Hysterectomy: A Hands-on Seminar** - ANW Laser Education Center
12 & 13	**Laparoscopic Gastrointestinal Tract Surgery** - ANW Laser Education Center
12 & 13	**Advanced Life Support in Obstetrics (ALSO) Course** - United/Children's Conference Center, St. Paul
19 & 20	**Advanced Laparoscopic Inguinal Herniorrhaphy** - ANW Laser Education Center
27	**Institutional Review Boards: Issues For The 90s** - United/Children's Conference Center, St. Paul
April	
24	**First Annual Infertility and Reproductive Medicine Conference for Primary Care Physicians** - United/Children's Conference Center, St. Paul
26 & 27	**Advanced Trauma Life Support (ATLS™) Course** - United/Children's Conference Center, St. Paul

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1993 Winter Scheduled Events

March	
2	**Endocrine Emergencies** - Mark P. Stesin, MD
16	**Pediatric Orthopaedics: Avoiding the Pitfalls** - Larry S. Stern, MD
30	**Gut Motility Disorders** - James R. Woods, MD
April	
13	**Asthma Update** - Ted Berman, MD

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Let Marketplace Regulate Specialization

Edmund C. Burke, M.D.

The public is joining the chorus of voices blaming specialists for the high cost of medical care, and, as a result, many people are calling for regulating the number of specialists medical schools can train. Specialization may be one small factor in the high cost of health care, but I disagree that it is a primary factor. High administrative costs, expensive technology, and unhealthy personal behavior are just a few of the many factors that drive up the cost of care and should not be ignored. U.S. medical specialists may be expensive, but they use the world's most advanced technology to provide high-quality patient care—possibly the best anywhere. It is not fair to single them out as the reason for high health care costs.

Arthur Caplan claims in an editorial in the Minneapolis-based *Star Tribune* that we should emulate Canada, which closely regulates the number of specialists medical schools can train. He says we have far too many costly specialists and not enough general and primary care practitioners. It is true that we need more primary care physicians: Experts say half of U.S. doctors should be generalists, but, in reality, only about one-third of our country's 600,000 physicians are. In addition, more than 25 percent of residency training programs in general medicine went unfilled in 1991. Nonetheless, it's wrong for society to force medical students into certain career paths. They should be given the freedom to choose their areas of study, just as students in other fields choose theirs.

A mix of economic, professional, and cultural forces lead young physicians to make certain career choices. We can encourage students in many ways to choose primary care, without forcing them to do so.

"It's wrong for society to force medical students into certain career paths."

One reason medical students choose to specialize is money. Young physicians graduate with large debts—often as high as a home mortgage—and are attracted to specialties with high salaries. Providing tuition-free education is one solution some medical schools have tried.

But economics is not the only issue. Faculties are dominated by mentors who are specialists, and their curricula remain focused on high-tech hospital care. Even primary care training has a high-tech emphasis with extensive studies in neonatal and adult intensive care units.

Listen to what one physician says in a letter to the editor in the *Journal of the American Medical Association*: "I took to subterfuge in my fourth year when asked about my residency choices rather than submitting to the onslaught that followed my naming family medicine as the object of my applications. ... It is the values that permeate the system of medical education and therefore the socialization process of becoming a physician that are the major determinant of career choice. The weight of the biomedical courses in the first two years, the glorification of medical technology, the preponderance of bench researchers with no counterbalance of primary care physicians, and the dominant clinical perspective of the subspecialist have [a great] impact on choices," writes the author, whose opinion was formed by her experiences at the Mount Sinai School of Medicine in New York.

Medical schools are revamping their curricula to place more emphasis on outpatient clinical training. Various universities are expending major effort to increase the proportion of generalists enrolled in residency programs, and, in some parts of the country, even HMOs are starting residency programs for primary care physicians. Nonetheless, a quick fix to the problem is not possible because, with medical school and residency training taking at least seven years, initiatives launched today will not bear fruit for nearly a decade. But we must focus on these efforts to make needed change.

We sometimes overlook the varied and interesting character of the young people who choose medicine as their life's work. The individual and personal needs of these young physicians are major factors in determining the nature of the medical careers they pursue. Their choices should remain personal and should not be mandated by law. The marketplace is a much better influence in the long run. Society has been led astray by the unfair assertion that the large number of specialists in our country is the primary cause of high health care costs. Increasing the number of primary care practitioners should be far more sophisticated than simply limiting by law the number of specialists trained in our country. **MM**

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Compare pork with chicken[1,2*]

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Pork Tenderloin, trimmed	139	4.1 g	1.4 g	67 mg
Pork Top Loin Roast (boneless), trimmed	165	6.1 g	2.2 g	66 mg
Center Loin Chop, trimmed	172	6.9 g	2.5 g	70 mg
Chicken Thigh, skinless	178	9.2 g	2.6 g	81 mg

*Table refers to 3-oz, cooked servings.

New study: Pork is now 31% leaner

Pork is leaner today because of significant changes made in breeding and feeding techniques.[1] According to new 1992 official USDA data, fresh pork sold today contains an average of 31% less fat after cooking and trimming than the same pork cuts reported in 1983.[1]

Today's pork fits well within the dietary guidelines recommended by both the American Heart Association and the National Cholesterol Education Program. Here's some advice to help patients on low-fat diets enjoy the variety, extra taste, and versatility of pork:

- Choose the leanest cuts. Shop for cuts with "loin" in the name.
- Trim away any visible fat.
- Keep portions moderate (about 3 oz, cooked).
- Prepare by broiling or roasting, and avoid additional fat in preparation.

1. US Dept of Agriculture. *Composition of Foods: Pork Products*, 1992. Agricultural handbook 8-10.
2. US Dept of Agriculture. *Composition of Foods: Poultry Products*, 1979. Agricultural handbook 8-5.

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HCMS Combats Abuse on All Fronts

Minnesota Medicine interviews Diane A. Dahl, M.D.

Physicians must recognize abuse in their work and home environments before they can recognize and treat it in the health care setting. This is the basis for Hennepin County Medical Society's Abuse Prevention and Conflict Resolution Project. Using a model developed by HCMS, six metro area hospitals and one clinic are in various stages of developing programs to identify abusive experiences and behaviors at home and in the workplace and are implementing strategies to prevent them from recurring. "Abuse in the workplace creates increased health care costs, low staff morale, reduced productivity, increased absenteeism, reduced communication, and more staff turnover," says Diane A. Dahl, M.D., president of HCMS and chair of the project. "It is important that we, as physicians, become educated in identifying abuse among ourselves and in our relationships with others in order that we may succeed in identifying it within our patients."

A recent survey of internal medicine interns and residents at the University of California at San Francisco revealed that three-quarters of the women and one-fifth of the men believe they have been sexually harassed. Most incidents involved offensive comments, such as jokes and remarks about an individual's anatomy, or persistent, unwelcome flirtation. HCMS is working to combat such abuse, as well as less overt abuse, such as fear and intimidation. According to David Moen, M.D., an emergency physician from Fairview Riverside Medical Center who works with the project, if medical professionals expand their definition of abuse to include deliberate efforts to humiliate and destroy one's self-esteem (which most people have experienced at some point), they may sense a common link with their patients who are abused and may be better prepared to help them.

In this interview, Dr. Dahl describes HCMS's Abuse Prevention and Conflict Resolution Project. Dr. Dahl is director of the Family Practice Residency, Methodist Unit/University of Minnesota Department of Family Practice and Community Health, and an assistant professor at the university's medical school.

Diane A. Dahl, M.D.

"The goal is to expand awareness of abuse in our own working relationships."

Minnesota Medicine: How did the Hennepin County Medical Society's Abuse Prevention and Conflict Resolution Project get started, and how did you become involved?

Dahl: The project grew out of an HCMS task force started by Dr. Robert Maxeiner, Jr., a surgeon, in the early '80s. He felt the court system overemphasized punitive measures for dealing with abuse and neglect. The task force worked with judges, the penal system, the court system, and social workers to emphasize preventive, rather than punitive, measures. In 1989 and 1990, HCMS formalized the committee, and I became one of its first members.

The model that developed in the workplace was first used by North Memorial Medical Center and by Fairview Riverside. The hospital medical staffs were given the chance to work on specific parts of the program dealing with abuse in the workplace. David Moen, a bright, young ER doctor at Fairview Riverside, took on the project and was very successful. He formed a committee of Riverside emergency room staff that called itself the RESPECT Committee. The whole staff became involved in identifying how they could recognize abuse and educate both their patients and themselves. The staff quickly recognized that many of the women they were treating were abused, and that the staff had become desensitized to abuse. They also realized that as a fallout of this, subtle abuse was occurring within the ER system. They were able to peel away their desensitization and develop a much better way of treating patients and working together.

We also started a program at North Memorial Medical Center. The program began with the medical staff identifying problems in physician relationships with their paramedical staff, nurses, patient advocates, etc. The physicians at North Memorial even began focusing on their marriages and relationships with significant others. They have gone so far as to identify problem areas that may cause their children to have difficulties. This is all part of the Hennepin County Medical Society Abuse

Prevention and Conflict Resolution Project.

Minnesota Medicine: How does the Hennepin County program work?

Dahl: The project is conducted through the hospital or group medical staffs using an evaluation, education, and intervention model that is applied much like following a flow chart. The project oversight committee, representing the participating hospitals and the various aspects of the studies in progress, meets regularly to see how the projects are coming and to give direction.

> "One of the biggest stumbling blocks is the language itself; the words can be inflammatory."

Spreading the Word

Minnesota Medicine: What other hospitals or groups are using your program?

Dahl: Methodist Hospital and Park Nicollet Medical Center have a project in the formative stages, and the programs are moving fast now because we have a model that makes it easier to get started. Mercy, Unity, Fairview Southdale, and the University of Minnesota have projects underway, all in different phases.

Minnesota Medicine: Do you see any potential for the program to be used outside the hospital or clinic setting?

Dahl: A liaison committee representing the project recently met with Minneapolis city administrators and union leaders. Through Medica, the city's major third-party payer, Minneapolis is trying to develop an abuse prevention program for its employees. It's exciting for us to see enthusiasm for our program outside a hospital system. In fact, I was overwhelmed by the intense interest in the program.

Overcoming Resistance, Monitoring Results

Minnesota Medicine: What kind of resistance to the program have you encountered, and how have you overcome it?

Dahl: We sometimes seem to run into a brick wall. For example, some hospital administrators have had difficulty understanding how to apply the program. Hospitals with more sophisticated employee assistance programs seem better able to handle the program. Some are ready for the onslaught of questions that tend to come from employees, but others are not. One of the biggest stumbling blocks is the language itself, because the words can be inflammatory, and there is still fear of opening a Pandora's box. We provide the education and evaluation components in the workplace. We do not use punitive action; we emphasize education and prevention.

Minnesota Medicine: How do you monitor results?

Dahl: Our consultant, Deborah Anderson, has developed an evaluation tool. Additionally, the Park Nicollet-Methodist group has been working with statisticians to develop a more specific measuring tool, but we haven't finished testing it yet. We hope to have a statistically valid instrument that we can use to measure people's perceptions before training. We can then educate and train people in the areas they need it most.

Offering Hope for the Future

Minnesota Medicine: Minnesota has a reputation for being out front on many issues. Have other states started similar programs?

Dahl: I think people throughout the United States recognize that domestic abuse is a problem, but they have not done anything similar to our program, as far as I know. Physicians in other states have information about social services—shelters for battered women, resources, and things of that nature—but what we are doing is a little different; we are trying to look at ourselves and our own workplaces and evaluate the ramifications of our own relationships in the medical setting. Physicians can change behavior in our society. The smoke-free initiative is one example that has proven the extent of our influence.

Minnesota Medicine: Do you have a vision for the future of this project?

Dahl: Our primary purpose is to increase awareness of both subtle and overt forms of abuse in our own working and professional relationships. The best success we could hope for is that the groups already participating in the project will make it a formal and permanent part of their programs. I'd also like the project to expand to other institutions as a regular part of staff training. Dr. Alison Coulter-Knoff, who is involved with family practice residency training at North Memorial, has been named my co-director of the committee. We both feel a curriculum for medical schools and other training programs needs to be created so students will become aware of these kinds of problems and change their behavior before establishing careers.

Getting a Program Started

Minnesota Medicine: What kind of assistance or advice would you offer someone interested in starting an Abuse Prevention and Conflict Resolution Project?

Dahl: We have many participants who are available to speak to people about the project. We can provide a format for getting started, and we have a lot of literature to help physicians plan programs of their own. As I mentioned, we work with a consultant, Deborah Anderson, who has formed her own company called Respond 2. She can also help people establish Abuse Prevention and Conflict Resolution Projects. For more information, please contact the Hennepin County Medical Society at 612/623-3030. **MM**

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Another Face of Medicine

A Report from Russia

Lee J. Cohen, M.D.

Imagine the head of surgery at Hennepin County Medical Center moonlighting to earn enough money to buy his son tennis shoes. Or imagine the gastroenterologist on call being brought in from home to remove a foreign body from a child's stomach and being paid about enough to buy a couple loaves of bread or a quarter bottle of vodka. Imagine it being the operating surgeon's responsibility to carry the patient back to her room in his arms after surgery. Odd as they may seem to us, such experiences are commonly encountered by our Russian colleagues and can help us gain perspective on the troubles of American physicians.

Physicians in Duluth have developed an exchange program with physicians of Petrozavodsk, Duluth's sister city in Russia. Our goal is to develop a deeper understanding of how medicine is practiced in Russia and to offer Petrozavodsk's doctors an example of how we in Minnesota practice medicine, including family medicine, which has generated considerable interest in Russia (see *Minnesota Medicine*, September 1991, page 18).

Under the auspices of this program, I lived from mid-October to mid-December in Petrozavodsk, capital of the Republic of Karelia in the region of Russia adjacent to Finland. While working there as well as in two regional medical centers in the towns of Segezha and Kostamushka, and while visiting village medical facilities, I learned of the challenges facing Russian medical doctors.

One route to Petrozavodsk's city center—the high-tech and the low-tech side by side in Russia.

I am a small-town family physician practicing in Two Harbors, Minnesota, and speak Russian well enough to interact with and work alongside my Russian colleagues. In Petrozavodsk, I tried to work in as many areas of medicine as would be appropriate for a family physician from the United States. Such an experience was not possible even two years ago, when I first visited Petrozavodsk. This time I was allowed to go everywhere and was received with warmth and an eagerness to share experiences.

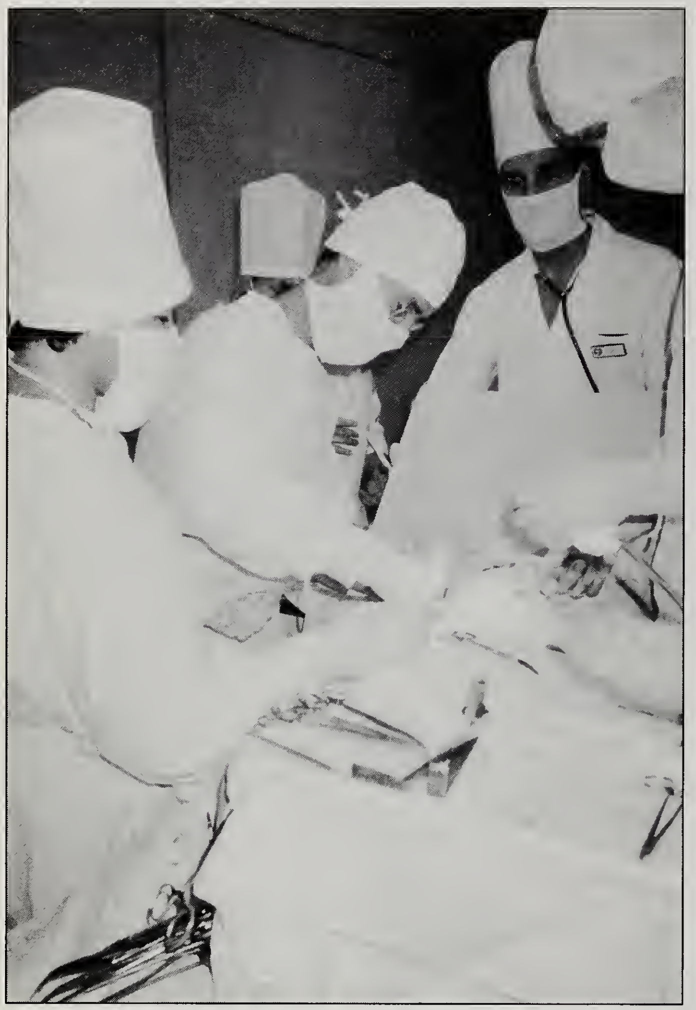
The following account is a synopsis of some of my general impressions. It must be interpreted as a personal record of observations I made in the Republic of Karelia; I certainly did not see everything in Karelia, and health care in other areas of Russia may be quite different.

Social Contrasts

Crucial to understanding the differences between the medical systems in our two countries is understanding the societal differences. As Americans, we place a great value on individualism and independence—concepts not prevalent in Russian society and medicine.

In the city of Petrozavodsk, and in Russia generally, health care is centrally organized and is part of the state system of health care services. For example, there is a Russian health ministry, a Karelian health ministry, and a city health ministry, each with head doctors and various assistants. Decisions are generally made from the top down, and the ability of the average practicing physician to take individual initiative, problem solve creatively, or even set his or her own schedule is severely limited. Much treatment is "per instruction" (according to practice guidelines) dictated by central authorities. Deviation from these guidelines is possible, but the treating doctor has to answer for negative results. Physicians' records are reviewed by superiors from their institutions, and the doctors are evaluated for thoroughness and conformity to accepted standards.

Somewhere high in the administrative structure someone decided family medicine would be a good idea for Russia. The order went out—create family medicine! Subspecialty professors were directed to design and implement a program of family medicine, although they



PHOTOGRAPHS COURTESY OF LEE J. COHEN

Dr. Cohen places a symbolic stitch for the camera at City Hospital in Petrozavodsk.

had no idea what family medicine should be and played no role in deciding whether or not such a concept made any sense given the current health care situation in Russia. I was met with hearty laughter when, at a conference of doctors (who, by the way, were all ordered to attend because an American doctor would be speaking), I suggested that a more productive way of approaching the issue would be for interested physicians to meet, discuss the merits of family medicine in Russia, and, if the concept seemed useful, to outline the goals of a family medicine program and design a system to meet these goals. Individual doctors do not see themselves as having the power to undertake such initiatives. The laughter reflected the absurdity of my suggestion in the Russian context.

For Americans, one of the most sacred concepts of medicine is the privacy of the physician-patient relationship. Not only the concept, but even the word "privacy" was difficult for me to translate. In Russia, medicine has traditionally been considered a societal concern. Above the main entrance to the city hospital in Petrozavodsk reads a banner, "The health of the individual is the priceless wealth of society." Every person has a doctor, and access to health care is universal and free. There is a strong emphasis on public health and on prevention and follow-up of certain public health-related diseases.

Most primary care pediatricians and adult medicine doctors or "therapeutists" are associated with an outpatient clinic, and, strikingly different from the U.S. system, they are assigned a certain geographic area of the city. All patients living within that area are served by the assigned physician; in essence, patients cannot choose their primary care physicians. Still, the system has advantages as well as disadvantages. The primary care doctor is held responsible for ensuring preventive health care to a particular group of patients. Pediatricians often schedule sessions in day care and nursery school settings, where all sick children are examined and their immunization status verified. Similarly, adult primary care doctors keep regular records of preventive visits, and, if a patient hasn't come in for a regular examination, the doctor seeks out the patient for evaluation. Follow-up after diagnosis of tuberculosis and venereal disease is particularly vigorous.

Russian doctors do not enjoy the high social and economic position to which American physicians have become accustomed. Traditionally, new doctors receive a salary about equal to that of starting teachers and less than that of beginning factor workers. In today's climate of hyperinflation, Russian physicians have fallen way behind economically, suffering a drop of approximately two-thirds in real income over the past year. The ambulance driver makes three to five times more than the doctor riding with him. Although it's hard to imagine, a moonlighting emergency room physician could earn as much in one day using his car as a private taxi as he could working a whole week as a doctor. Young people in Russia are still rushing to medicine as a profession, but it must be because of the intellectual challenge and their dedication to the field rather than for any economic rewards or social status.

A Russian Physician's Daily Life

The average pediatrician or therapeutist spends half of each day seeing patients in an outpatient clinic and the other half doing house calls. It is generally accepted wisdom in Russia that acute illness demands a house call. Acute illness includes such ailments as headaches, sore throats, earaches, and a wide spectrum of minor problems as well as true emergencies. A 24-hour ambulance service receives more urgent calls and all calls after 11 p.m. In contrast to our American system, full-time emergency doctors ride in the ambulances and are prepared to offer care at the patient's home.

Typically, a Russian doctor works out of one office, while patients wait in chairs in the hallway. When one patient leaves the office, the next one enters, often waiting while the doctor finishes paperwork (all handwritten) from the previous patient. The nurses' main function seems to be helping with paperwork. I seldom saw a nurse measure temperature or blood pressure or get involved with clinical interaction. The average pediatrician or therapeutist sees perhaps 20 to 25 patients in a two-hour clinic and another 10 to 20 on house calls, but most visits are for routine minor illnesses.

Paperwork ... and More Paperwork

In the outpatient setting, the average practicing physician copes with massive paperwork. Every acutely ill patient needs a written permit from a doctor to miss work, and the physician must examine the patient every three days to renew this work release. An illness that requires more time off from work than average dictates that the primary doctor consult with his or her superior. Thus, for every simple upper respiratory infection, three or four visits are typical, and at each, the physician must fill out a long document certifying that the patient is indeed ill. Once the patient has recovered, the doctor must complete another form to allow the patient to return to work or school.

Physicians also spend vast amounts of time on paperwork related to medical statistics. For example, primary care doctors must tally each patient visit so information is available about the number of respiratory, ear, or gastrointestinal infections treated weekly. While this may provide valuable information, the time demand is a serious drain on the doctors and cuts into time available for patient care.

Ultraspecialization and Its Results

Cardiologists, neurologists, radiologists, ENTs, and other specialists, as well as primary care doctors, are associated with the local clinics. Some Russian medical specialists have received several months of additional training in their areas but would not be considered fully qualified specialists in the American sense; others are more fully qualified. Within the past 20 years, subspecialization has grown significantly in Russia, the belief being that doctors who treat only a narrow range of problems can do a better job. Thus, the specialists I encountered tended to have practices narrower in scope than we would consider typical in our country. For example, otitis media generally is cared for by an ENT; a fainting attack virtually mandates a visit to a neurologist; and suspicion of venereal disease triggers a visit to a venereal clinic (sometimes a journey of hours or days), where a doctor practicing only venerology would examine the patient. Clinic gynecologists do only outpatient gynecology work, and all deliveries are performed by hospital-based obstetricians.

Ultraspecialization has led to the establishment of various health care institutions, often with poor coordination between them. Within the city of Petrozavodsk are several adult medicine clinics; several pediatric clinics; a general emergency hospital; a general children's hospital; an infectious disease hospital; a republic adult hospital and a republic children's hospital; a dermatology-venerology clinic; a tuberculosis hospital; industrial medicine clinics associated with large enterprises; two maternity hospitals; an entire ambulance-based emergency medical system and a semi-urgent emergency system; separate hospitals for railroad workers and their families, for seamen and their families, for the police, and for the army and KGB; several other military-related hospitals and veterans hospitals; and other health organizations and institutions I did not visit. I found coordination and cooperation among these various medical institutions to be limited. For example, a young woman evaluated late at night in the emergency department of the city hospital because of abdominal pain was sent by taxi to a gynecology institution for a pelvic exam. At the city pediatric hospital, where many seriously ill children are cared for, sweat chloride testing is not available. Physicians there were not aware that this test could be performed three blocks away at the infectious disease hospital.

Newborns on the way to their mothers—group members from day one.

'Work with Bare Hands'

Russian physicians must cope with their hospitals' and clinics' inadequate physical conditions and lack of equipment and modern supplies. Many laughingly refer to this as "work with bare hands." The fact that Russian physicians are able to diagnose and treat patients as well as they do is a tribute to their fortitude and ingenuity. One might wonder how American doctors would cope if faced with the same conditions.

Many doctors I met were familiar with Western medical literature and the most modern methods of diagnosis and treatment in their fields; however, they were limited by lack of equipment and medication. For

Clinic and hospital in Chorny Parok, a small village in the Republic of Karelia with a population of a few thousand.

instance, cardiologists at the city hospital in Petrozavodsk were well aware of the advantages of various intravenous thrombolytic agents for acute care of myocardial infarction, but such agents had not been available for quite some time. The only suture material I saw was catgut and silk, threaded on reusable needles. No otoscopes or ophthalmoscopes were available, and even flashlights for looking at throats were considered a novelty. Flavored antibiotic syrup for children had just made an appearance in Petrozavodsk in limited supply, causing quite a sensation.

Many larger, city clinics can do EKGs and simple laboratory tests and x-rays, but the diagnostic services available are very limited, and any significant diagnostic or therapeutic problem requires hospitalization. Stool cultures are frequently performed, but throat cultures, Dextrostix, and mono spot tests are not available. Virtually no lab or x-rays are available in the small-town clinics, and hospital laboratories provided only CBC, UA, blood typing, and a few chemistries.

I saw rural hospitals and clinics with electricity but no running water or plumbing. In these rural settings, the doctors often function like general practitioners, even when their training is much more specialized. Many of these rural areas are served by mid-level medical personnel, such as midwives or feldshers (like physician assistants), who offer services that the pediatricians or therapeutists might not, such as pelvic exams, prenatal and postnatal care, or immunizations. Patients who require anything but the most basic care are transported to larger, city hospitals, which sometimes causes logistical problems. When I was there, one of the two ambulances in the small village of Ledmozera had been out of commission for months because of lack of spare parts.

Unfortunately, the working conditions for Russian doctors are even worse than they were a year or two ago. Simple medicines that used to be readily available have disappeared from the pharmacy, and second- or third-line treatments must be used. Trimethoprim sulfa and amoxicillin are not available; however, erythromycin and ampicillin are. Most modern cardiovascular medicines are in very short supply. Bronchial inhalers for asthma are not available. Emergency doctors I worked with often had no Lasix with which to treat acute pulmonary edema. Surprisingly, I did see large quantities of single-use syringes and needles in virtually every facility I visited.

Divergent Treatment Approaches

Although American and Russian approaches to medical care are similar in many ways, I frequently encountered situations that revealed our truly divergent views. For instance, some Russian ambulance physicians felt that morphine would be harmful in the case of acute pulmonary edema and that furosemide was only a tertiary treatment modality. Cardiologists and anesthesiologists I talked with readily agreed that morphine and furosemide are essential for treating acute pulmonary edema, but they also believed that an agent known as "foam extinguisher" is important for treating the problem. From what I could ascertain, such agents are thought to facilitate the dispersion of edema in the lungs. An example of this would be alcohol given through the endotracheal tube or intravenously. I was told that other more effective agents were available in the past but were no longer.

The Russian doctors' approach to hypertension is also far different from ours. Even highly trained experts I met were of the opinion that an episodic rise of 20-30 mmHg above a person's average blood pressure is highly undesirable and can produce headache, nausea, vomiting, and symptoms of hypertensive crisis. They feel this requires emergency drug treatment, often with intravenous pentolinium (a ganglion blocker) or intramuscular magnesium sulfate. A physician confronted with a patient complaining of headache and general discomfort and whose blood pressure measured 160-170/90-95 mmHg would diagnose hypertensive emergency and begin treatment. In cases as diverse as migraine, pulmonary edema, or unstable angina, physicians would treat the high blood pressure rather than the underlying problem. Russian physicians responded with polite skepticism when I described American medicine's emphasis on long-term control of hypertension and more calm approach to slight day-to-day fluctuations.

I witnessed other approaches in pediatrics, physical medicine, and gastroenterology that seem strange to an American physician. Pediatricians widely believe that atopic dermatitis is caused by impurities in the diet and that choleretics can help the liver clear these "impurities." I was met with disbelief when I suggested that choleretics have no current role in American medicine. "Dyskinesia" of the biliary tract has become a very popular diagnosis since the inception of diagnostic ultrasound, which is used widely in Russia. "Dyspancreatism" seemed the favored diagnosis for children presenting with nonspecific abdominal pain.

A wide range of physical medicine procedures, often incomprehensible to me, was applied to a variety of internal diseases, such as bronchitis or intestinal colic. Electrophoresis with topical Novacain is a favorite treatment for strains and contusions. I eventually came to feel that when Russian doctors need to "do something," they resort to these physical measures, whereas in similar circumstances, American physicians tend to draw blood and order x-rays.

I was impressed with obstetricians' knowledge and understanding of classical obstetrics and extensive experience in physical examination and diagnosis. However, some approaches were at odds with my background. For example, doctors interpret an above-average weight gain associated with some edema as the first stage of preeclampsia and often hospitalize these patients for long periods. Also, they consider 8 to 10 white blood cells in the urine with a sterile culture a sign of chronic pyelonephritis and treat these patients as high risk.

Recent trends in obstetrics have made an impact in Petrozavodsk. Labor wards and delivery halls have been rearranged to allow women to labor and deliver in the same room and in privacy. Although it is still considered inappropriate for fathers and other family members to be in the delivery room, in certain cases, fathers are allowed to visit in the maternity hospital—something that had been strictly forbidden in the past. This conservatism is partly due to the great fear of and respect for the risk of infection that permeates Russian medicine. Because of crowding and sanitation problems, as well as the unavailability of potent antibiotics, infectious diseases undoubtedly pose a greater risk in Russia than in Minnesota.

In general, there is strict separation of infectious cases from noninfectious illnesses. While working at the walk-in trauma center, I was surprised that patients with paronychia were not treated on the spot; instead, they were referred to an infectious surgical setting. Children with pneumonia or gastrointestinal infections are admitted to a separate children's hospital altogether or are placed in totally separate wings designated for infectious cases. All children are vaccinated against tuberculosis, and medical workers are required to undergo chest fluoroscopy every year. Although there is concern about radiation exposure, especially after Chernobyl, there just simply isn't enough radiographic film available to do plain chest x-rays for TB screening, and tuberculosis remains a serious threat to the population.

Systems in Crisis

In spite of the many differences between health care in Russia and in America, in both countries we feel our medical systems are in a crisis. Ironically, while here we talk of more centralized government control, nationalized health insurance, and a reining in of health care technology, in Russia solutions are sought in privatization of health care and medical insurance, decentralization, and obtainment of greater medical technology. Perhaps each of us has something to learn from the experiences of the other. **MM**

Acknowledgment

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Lee Cohen is a family physician with the Community Health Center and Lakeview Memorial Hospital in Two Harbors, Minnesota, and a clinical assistant professor at the University of Minnesota-Duluth School of Medicine.

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COVER STORY

The University Hospital

Will New Strategies Keep It in the Game?

By Joseph Moriarity

PHOTOGRAPHS BY ROB LEVINE

GREG HART

Minnesota health care providers, purchasers, and patients have had the privilege, if you will, of experiencing a health care system undergoing tumultuous change over the past decade. Out of the tumult has emerged a market with the largest penetration of managed care and the most intense competition of any in the United States. While the players have been dealing and betting, the University of Minnesota Hospital and Clinic has stood pat with what it thought to be a winning hand. But the marketplace has been calling for a show of cards, and the straight flush the university thought it was holding in this high stakes game of institutional survival is suddenly looking more like two pair.

UMHC is witnessing a steady decline in patients that threatens not only its own survival, but, according to university administrators, its ability to educate students in medicine and other related fields like nursing, pharmacy, and occupational and physical therapy. “We are right on the edge of not being able to fulfill our mission because of a lack of patients,” says Robert Anderson, M.D., the university’s vice president for health sciences. “We cannot educate students in the health sciences without patients.”

UMHC has been feeling competitive pressures for several years. Last year, the hospital had 18,073 patients, down from 19,246 four years ago. More important, it’s losing market share. The hospital had 6.4 percent of the Twin Cities inpatient market in 1989, 6.2 percent in 1991, and 6.1 percent for the fiscal year ending June 1992. Analysts predict that more cost-containment efforts and a continuing trend toward outpatient care will cut the Twin Cities market for inpatient care by 7 percent by 1996.

“While we still remain financially healthy, we don’t at all like this downward trend in admissions, activity levels, and market share,” says Greg Hart, UMHC general director. “We are looking at getting a smaller piece of an ever smaller pie unless we make some changes.”

> "We are looking at getting a smaller piece of an ever smaller pie unless we make some changes."
>
> *Greg Hart*

And changes are coming. In January, the university’s board of regents approved what it considers a bold strategic plan to reverse these negative trends and ensure UMHC’s continued viability. “This is a realistic plan that involved a lot of input from the hospital, the clinical staff, and the medical school,” says William Jacott, M.D., assistant vice president for health sciences and associate professor of family practice in the medical school. “It will mean changes in some of the time-honored ways in which we deal with the public and community, with costs, how we relate to colleagues, and who we affiliate with. It will be a move away from the ivory tower mentality.”

The First Move: Strengthen Overall Competitiveness

To meet the market challenge and reverse market share erosion, UMHC plans first to move quickly to strengthen the overall competitiveness of clinical operations in terms of cost, service, and clinical outcomes.

Reducing costs

The managed care market has shown no willingness to pay a premium for services provided at an academic medical center, and UMHC’s costs are on average 20 percent higher than costs at other metro hospitals. In fact, they are higher than those at most other comparable teaching hospitals.

Part of the difference in cost between UMHC and its Twin Cities competitors reflects the type of patients UMHC treats. As a tertiary care and referral center, UMHC treats many patients who are far more ill than those at other hospitals. Part of the difference, too, results from UMHC’s teaching mission. Teaching and research costs account for 10 percent to 15 percent of total expenses, yet state funds account for less than 5 percent of annual revenues.

Not all of UMHC’s higher costs are unavoidable, Hart is quick to point out. His goal is to take $45 million out of operating expenses over the next year, thereby reducing patient care costs by 10 percent to 15 percent per discharge. UMHC will look everywhere for savings. Staffing will be reduced, employees will face a significant reduction in benefits—changes that have met with strong resistance—and purchasing will be more centralized to take advantage of volume discounts.

"We're also asking the medical staff to be part of this process—to look carefully at practice patterns, at the tests, procedures, and medicines that are ordered," says Hart. In the past, he explains, the prevalent teaching philosophy dictated that "it was important for residents to learn how to use lab services, so we ought to let them order what they think is best."

Robert Anderson, M.D.

The strategic plan calls for faculty to "emphasize the need to be more conscious of cost control when teaching residents and interns," says Edward Ciriacy, M.D., chief of family practice. "It's a skill they'll need in their practices, too."

Improving service

While surveys of patients and referring physicians consistently give the University Hospital very high marks in the scientific and clinical domain, "we still have a problem in basic service," says Hart. "For example, people have to wait too long to get a clinic appointment, registration is too complex, and referring physicians tell us our doctors don't get back to them quickly enough with information on how their patients are doing. We fare especially poorly in comparison with the Mayo Clinic in communication."

> "We cannot educate students in the health sciences without patients."
>
> Robert Anderson, M.D.

Getting the disparate parts of an organization the size of UMHC to change their methods and to do so quickly is clearly no small challenge. Further complicating matters, governance of the physicians is spread among 18 clinical departments. "Nevertheless, we're making a lot of progress," says Roby Thompson, Jr., M.D., chief of orthopedics and chief of the clinical chiefs of staff. "The charge to our clinical departments is to eliminate obstacles to convenience in patient care and in returning information to referring physicians. The faculty agreed to work more closely than in the past to pool resources and develop more patient-friendly systems. We want to provide services customized to the needs of our referrers."

Measuring clinical outcomes

Nationally, clinical outcomes measures are becoming an increasingly important concern for employers, the major purchasers of health care services. The university has formed a new Clinical Outcomes Task Force to develop the technologies and databases required to demonstrate superior clinical outcomes to purchasers more effectively than competitors. "We also need to turn the emphasis on clinical research, which is a form of outcomes measurement, away from journal publication and toward measuring the impact of procedures from a purchaser's point of view," says Hart. "Given what we're already doing, this should be a definite competitive advantage for us."

The Search for External Market Initiatives

In searching for competitive advantages, UMHC is also turning to external market initiatives to strengthen its primary care base. "That could mean making contractual arrangements with managed care organizations, allying with another hospital to offer a given set of services, affiliating with a primary care hospital system, or purchasing physician practices," says Hart. "Unless we involve ourselves in some way with such organizations, we see ourselves locked out, if you will, from the large patient groups."

To attract patients, UMHC has to be part of the managed care system, says Hart, "and that means being an attractive partner to the managed care plans, to other hospital systems, and to other physicians in the state. We'll be an attractive partner only if we become more cost-effective, improve our service, and demonstrate superior outcomes to people paying for care. If we can do this, we believe there's room for us in the system."

Managed care organizations

UMHC is, however, coming late to the playing table. The Twin Cities health care market is already the most highly integrated in the country, and the relationships between providers and managed care groups are very well developed. Hart estimates that, broadly speaking, 75 percent to 80 percent of Twin Citians are under a managed care plan, and he expects that number to be close to 100 percent in the near future. Similar integration and consolidation are also taking place rapidly in outstate Minnesota, with large referral networks forming around Duluth, Rochester, Willmar, and Fargo. Hospital systems like HealthSpan (formerly LifeSpan and Health One) have been aggressively purchasing primary care practices and otherwise forging bonds with physicians.

How will UMHC fit into this market? In the metro area, UMHC is seeking long-term affiliations. Nearly a dozen health care organizations—from managed care insurance groups to the major hospital systems—received a letter earlier this year from Hart inviting them to consider a partnership with UMHC. "Most of the organizations we sent the letter to were interested," says Hart. "We're currently holding preliminary discussions, and the response has been very encouraging."

In addition, UMHC has recently completed an arrangement with Fairview Riverside Medical Center that eliminates UMHC's obstetrics unit and relocates the university's obstetrics training program at the Riverside facility. UMHC's neonatal intensive care unit will also move to Riverside, although it will still be owned, staffed, and managed by the university. UMHC has asked to be part of the merger talks between Children's Hospital of St. Paul and Minneapolis Children's Medical Center. It is also holding discussions with Hennepin County Medical Center and St. Paul-Ramsey Medical Center, with whom the university has had long-standing teaching relationships. To increase referrals from primary care doctors, UMHC will also consider purchasing more clinics, as it did last year when it spent $9 million for a 28-doctor clinic in Red Wing. Hospital officials recently approached the St. Cloud Medical Group, a 27-physician practice in St. Cloud, and are discussing a buyout proposal with community leaders there.

> "The University Hospital is the odd one out right now, and that's a very tough place to be."
>
> James Reinertsen, M.D.

Primary care referral bases

Hart points to relationships like the one UMHC has in Hibbing as another tack the hospital plans to follow. University doctors have provided care and education there for a number of years at the request of Hibbing's primary care physicians. "We want to develop similar linkages with many communities across the state. The idea is not to take care out of the community, but to build partnerships and create a system that's best for a given community," explains Hart. "If we can demonstrate our expertise and capabilities, when it comes time to make a referral, perhaps our exposure will cause [these physicians] to think well of us."

Unfortunately, bad publicity has struck. Over the past year, and especially in recent months, the university's health sciences program has found itself receiving a steady stream of less-than-desirable media exposure—negative publicity stemming from investigations by state and federal agencies into questionable research and program management practices.

Hart acknowledges that these revelations have raised questions during UMHC's discussions with potential partners, but, he says, "we haven't found that it's changing the course of anyone's thinking. We think people will make their decisions based not so much upon the actions of one or two individuals, but on the overall reputation and direction of our organization."

Possible image problems aside, breaking into the managed care market—essentially the only market that now exists—presents a daunting task for UMHC. "It's a finite market out there, and Park Nicollet, HealthSpan, and Mayo are all major competitors for it," says George Halvorson, president and chief executive officer of HealthPartners, the recently affiliated Group Health and MedCenters. "What's more, each of those competitors has at present a much better referral base than the University Hospital, leaving it at a major competitive disadvantage from which it will be difficult to recover. It's not too late for a good strategy, but they're going to have to be extremely innovative in order to fit into the new marketplace. They have an immense amount of credibility as pure caregivers. If they can somehow couple that with a greater degree of cooperation and some price controls, maybe they can find their niche."

> "We want to provide services customized to the needs of our referrers."
>
> *Roby Thompson, M.D.*

James Reinertsen, M.D., former chief executive officer of Park Nicollet and soon-to-be president of the Park Nicollet-Methodist Hospital health care system, points out another underlying problem facing UMHC: "We're just starting to realize in this community—and nationally, too—how relatively over-supplied we are in specialty services. The University Hospital is typical of those in many academic settings in that it's relatively top-heavy in this area. They need to align themselves, it seems to me, with a big primary care base."

UMHC is heavily involved in "high-test" care, says Reinertsen, but the world we're moving toward will emphasize preventive care. "The University Hospital is the odd one out right now, and that's a very tough place to be."

Integrated Service Networks: a break for UMHC?

The Minnesota Health Care Commission's proposed Integrated Service Networks (ISNs) may be just the break UMHC needs to stay in the managed care game, for the simple reason that it's a new market development with the potential to reshape partnerships and alliances. Under the proposed system, competing networks of health care providers would offer a full array of health care services for a fixed price to a given purchaser, creating incentives for the participating providers and health plans to become more efficient.

"Many decisions had been made and solidified by caregivers vis-à-vis their referral patterns and their managed care relationships," says Halvorson, who is a member of the Health Care Commission "The net effect of current trends saw the University Hospital losing referrals in major portions of rural Minnesota as well as in the metro area. Now there's an opportunity for them to think of new ways to support the ISN system, to get to the table when decisions are being made and declare their role. Any time there's anything resembling massive change in the environment, it's an opportunity for people who are clear thinkers to make progress."

The effect of the commission's plan and the developing MinnesotaCare legislation on UMHC is difficult to predict. What kinds of exemptions are created and how the referral designations are made are important factors, as is the way the Legislature views the University Hospital—whether as a large cost item to be dealt with severely or as an asset deserving strong support.

University of Michigan Hospital: An Example of Success

UMHC can also find hope for improving cost efficiency in the experience of the University of Michigan Hospital, a teaching, research, and clinical care institution of similar stature. Its admissions continue to climb, its finances are solid, and it's out-competing many neighboring hospitals.

The Michigan hospital began responding to the changing marketplace eight years ago, adopting a strategy similar to UMHC's current one. Since 1985, it has cut operating expenses by $100 million, reports David Southwell, associate hospital director and financial officer. The hospital eliminated 300 FTEs through attrition and "outplacement" and froze overhead since 1987, and it continues to reduce the cost-per-case over previous years. "Hundreds of total quality teams constantly watch for ways we can do things better," says Southwell. "Through an employee 'gain-share' program, half the under-budget money we save is turned back to employees. Last year, each employee received a $2,500 bonus as a result of the program."

In addition, Southwell says the hospital has "worked very, very hard on firming up relationships with referring doctors." It implemented a referral network and a special direct phone line doctors can call to get immediate status on patients they have referred. "We have found that if referring doctors feel an organization is either stealing patients, or that the patient goes into a black hole and never comes out, they're not going to refer unless they absolutely have to. Simple as that," says Southwell.

The University of Michigan Hospital has paid close attention to meeting the needs of physician groups, hospitals, and other organizations, too, but has not formally affiliated with anyone. "While we have been asked many times to do so," says Southwell, "we have tried instead to create arrangements that give organizations what they need without an actual affiliation. Because we're a state resource, we don't want to be exclusionary."

Teaching and research do add to care costs, acknowledges Southwell, who describes them as "a blanket that can't be thrown off." In words that could have been spoken by Minnesota's Greg Hart, Southwell summarizes his hospital's approach: "What we're doing is rolling cost, service, and quality together and defining the combination as value. We think that if we can prove we're as low-cost as possible while at the same time providing some of the best medical staff and care available with good outcomes, we think people will pay for our services." That precisely describes UMHC's assumptions and hopes.

Roby Thompson, M.D.

UMHC knows it can no longer be everything for everyone. "For a long time, we tried to avoid formal affiliations because of the cost to groups who were not a favored partner," says Kris Johnson, chair of UMHC's board of governors. "We hoped there would be a way for us to remain as a referral center for everyone, in spite of the alliances and mergers taking place in the market. That didn't happen, and we've finally acknowledged that this is not a realistic alternative. We feel we've freed ourselves to act in ways that we'd have been very reluctant to in the past. I'm optimistic that there's a strong enough consensus on the need for change that it can happen. But it won't be easy. There's a big difference between having the intellectual commitment to change and possessing the emotional stamina required to drive it."

"The strategic plan will mean changes in some of the time-honored ways in which we deal with the public and community."

William Jacott, M.D.

The Triple Mission: Patient Care, Teaching, Research

For Hart, Johnson, and others at the university, the fate of the university's education and teaching missions are inextricably meshed with that of the hospital. "An active on-campus clinical program of sufficient critical mass, centered around a healthy university hospital, is critical to sustaining academic excellence, program strength, and financial integrity," states the hospital's strategic plan.

Strong medical schools have typically been affiliated with a hospital, says Johnson, who argues, "The nature of teaching medicine brings up the need for much interdisciplinary work. If you separate out programs by turning to a completely decentralized model, a fair amount of the synergy present in an integrated program would be lost."

Jacott minces no words making a similar point: "We'd be a floundering academic health center without our own hospital as part of the university structure."

Yet another perspective sees the University Hospital as merely one of a group of metropolitan hospitals, part of a system that inarguably has too much capacity and specialized services—a system that will continue to shrink in coming years. This view suggests it's possible for the state and the university to maintain the teaching and research capabilities of UMHC with a significantly different kind of university hospital.

KRIS JOHNSON

Providers in the community are quite concerned about UMHC's predicament. "Those I speak with regularly want to make sure that the university medical school and the important contributions it brings to our community and state are preserved and enhanced," says Park Nicollet's Reinertsen. "Providers will also distinguish, in a way that those inside the university may not, between the mission of the medical school—its training and research functions—and the mission of parts of the system, that is, the University Hospital. Whether one requires the other is *the* significant question I hear discussed."

The current centralized model for medical education and research institutions developed in the early 1900s, when it made eminent sense to locate teaching, research, and clinical care in close physical proximity. But the 1990s are clearly not the 1900s. Computers, telephones, interactive video, modems, faxes, and other technologies have revolutionized our ability to communicate and interact over distance. New and better models of medical education may be possible and need to be explored and developed.

"We all agree that we need an excellent medical school here," says Halvorson. "But the university may need to take a very aggressive and innovative look at how they're structured to figure out how they can create the kind of medical school we need for the state. That may or may not involve supporting the physical facility of the hospital."

In fact, excellent research and education can be provided in a decentralized setting, as demonstrated by Harvard University, which has no teaching hospital and instead uses community hospitals like Massachusetts General, Boston City Hospital, and others.

Interestingly, the majority of the University of Minnesota's residency training occurs outside UMHC. According to Robert McCollister, M.D., associate dean for curriculum affairs at the medical school, medical students currently receive more than 75 percent of their clinical education outside the University Hospital. Medical students' primary clinical education takes place in the medical school's major affiliated hospitals—Hennepin County Medical Center, St. Paul-Ramsey Medical Center, the Veterans Administration-Medical Center, as well as UMHC. In addition, says McCollister, one can find students doing clinical work in virtually every hospital in the Twin Cities. Private physicians also make a tremendous contribution, he says, pointing out that a large part of required outpatient course work takes place in the offices of family practice physicians.

> "There's a big difference between having the intellectual commitment to change and possessing the emotional stamina required to drive it."
>
> Kris Johnson

Health Care in the Year 2000

For now, the university is banking on its hospital's survival with the knowledge that its strategic plan will unfold in a health care environment dramatically different from the one to which we are accustomed. How that environment changes will also affect the hospital's survival. Reinertsen anticipates much greater consolidation into geographically specific care systems that will function much like public utilities—highly regulated, with cost caps and the responsibility for documenting quality. "They will need to be modestly profitable so they can reinvest," he says. "But instead of viewing themselves as profit centers trying to increase revenues, these systems will see themselves as *cost* centers—a very different situation from our current system, which has a vested interest in illness because that's how we get paid."

Whether the University of Minnesota Hospital and Clinic can find its place in this new world order remains to be seen. "We have a marvelous opportunity to be a model for others in the country," says the university's Jacott. "We are being looked at as a model of how an academic health center moves into the '90s in a competitive environment. We'll either be an effective model or an inappropriate example." MM

Joseph Moriarity is a free-lance writer living in Marine on St. Croix, Minnesota.

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1. Benson RC Jr. Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 1986;61:859-64.
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Fetal Alcohol Syndrome and Fetal Alcohol Effects

The University of Minnesota Experience

Kimberly Caruso and Robert ten Bensel, M.D., M.P.H.

ABSTRACT

Fetal alcohol syndrome (FAS) describes a set of physical and neurologic defects that occur in the newborn as a direct result of maternal alcohol consumption. We report on a review of a series of patients seen at the University of Minnesota Hospital and Clinic (UMHC) who were identified as having been exposed to alcohol in the prenatal period. Of 46 patients, 38 were found to have FAS, and seven were found to have a less severe set of abnormalities termed fetal alcohol effects (FAE). This series at UMHC demonstrated many shocking characteristics. The average IQ of the children with FAS was under 70. Every child with FAE had significant hyperactivity and attention deficit. And nearly every child in this study was in foster care or an adoptive home. This review reveals the devastating problems victims of FAS and FAE inherit.

From the time of Plato, and even before, societies have observed that alcohol consumption by a pregnant mother has a deleterious effect on her child. However, it was not until 1973, when Jones et al. in the United States proposed a link between "maternal alcoholism and aberrant morphogenesis in the offspring,"[1] that the medical community accepted alcohol—independent of any other agent—as a direct cause of birth defects. Since that time, the pattern of morphological teratogenic malformations observed by Jones et al. has been termed fetal alcohol syndrome (FAS), and a less severe pattern of damage that primarily affects behavior has been termed fetal alcohol effects (FAE). More than 3,000 papers have been published regarding the effects of maternal alcohol consumption on unborn children. The Minnesota Medical Association, through its Public Health Committee, is concerned about awareness of FAS/FAE, and the issue has been covered previously in *Minnesota Medicine*.[2] This paper briefly outlines the most current knowledge about FAS/FAE and discusses a series of FAS/FAE patients at the University of Minnesota.

Some Facts About FAS/FAE

In its publication "Healthy People 2000," the U.S. Department of Health and Human Services recognizes the following facts regarding FAS/FAE:[3]

- FAS and FAE together are the leading cause of mental retardation, ahead of spina bifida, fragile X syndrome, and Down syndrome;
- FAS and FAE are completely preventable;
- Estimates of FAS prevalence range from one to three in 1,000 births. This correlates to approximately 10,000 babies born each year in the United States with FAS;
- FAE occurs more than three times as often, with 36,000 affected babies born yearly;
- 30% to 40% of alcoholic mothers will give birth to a baby with FAS.

The diagnostic clinical characteristics of FAS children were first presented by Clarren and Smith in 1978[4] and have been upheld by all other researchers since that time. The criteria for the diagnosis of FAS are as follows:

1. history of maternal alcohol use during pregnancy;
2. mental retardation or developmental delay and/or microcephaly;
3. prenatal and postnatal growth retardation, height and/or weight below the fifth percentile for age;
4. facial malformations, including short palpebral fissures, epicanthal folds, flattened midface, short up-turned nose, long smooth philtrum, and thin vermilion of upper lip. The presence of only one of these features is not significant, but several together is diagnostic.

Although not diagnostic, many other deformities are often seen in FAS, including central nervous system (CNS) dysfunctions, such as seizure disorders, hyperactivity, and attention deficits; hearing loss; scoliosis in teenagers; and cardiac defects, particularly atrial septal defect and ventricular septal defect.[5]

The diagnosis of FAE is made when few physical deformities are noted and the patient, therefore, does not meet the criteria for FAS. FAE patients commonly manifest the behavioral and CNS disturbances, such as hyperactivity, attention deficit, poor judgment, and delayed learning. FAE is distinguished from attention deficit-hyperactivity disorder (ADHD) by evidence of a subnormal IQ in children with FAE.

How Much is Too Much?

How much alcohol consumption during pregnancy is too much? This is one of the most difficult questions to answer. Most researchers agree that "heavy" maternal alcohol consumption often results in FAS. Heavy consumption is generally defined as five or more drinks per day. However, researchers have found abnormal brain development at autopsy of children born to mothers who were "moderate" drinkers, usually defined as those who have two to five drinks per day.[6] Another study of mothers who drank only two drinks per day shows their children's IQs on average are seven points lower than the IQs of age-matched controls.[7]

Currently, there is no way to determine a "safe" level of alcohol consumption during pregnancy in humans to avoid FAS. It is also clear that children with FAE are born to mothers who drink relatively little. Therefore, both the Food and Drug Administration and the surgeon general have adopted the position that abstinence is the only safe choice for pregnant women.

The University of Minnesota Experience

This study reviewed the charts of 46 patients seen at the University of Minnesota Hospital and Clinic (UMHC) and who had previously been given the diagnosis of "maternal alcohol consumption." Interestingly, this diagnostic category did not exist at UMHC before 1979. Table 1 outlines the patients' general characteristics. Of 46 patients, 38 were classified as FAS, seven as FAE, and one as neither. Most of the patients were either Caucasian or American Indian. More than 70% of the children were boys.

Poor prenatal care is often cited as common among mothers of FAS/FAE infants. As shown in Table 2, only four mothers in the current study were documented as having had "good" prenatal care. Twenty mothers were noted to have obtained "poor" prenatal care (few visits, missed appointments), and eight were noted to have received no prenatal care at all.

Concurrent use of other drugs is also common among mothers of FAS/FAE infants. Fourteen of the women reportedly smoked cigarettes, six used cocaine, and four used other illegal drugs. One woman abused Valium, and another was taking one aspirin a day, apparently not under a physician's advice. Five women were treated with antibiotics during pregnancy. Another woman had a seizure disorder and was on phenobarbital and Tegretol, and a second required treatment with Aldomet on two separate occasions for hypertension.

Prenatal difficulties were also observed (Table 2). Four women had precipitous labor (one of whom delivered her infant in the toilet). Nine infants were premature, with an average gestational age of 31 weeks; the youngest was 24 weeks at delivery. Five other infants were born intoxicated, many of whom had a placental blood alcohol level well above the legal limit of .10 mg/dl. In many cases, the amniotic fluid reportedly smelled of ethanol.

The children in this study were given the initial diagnosis of FAS or FAE at outside institutions as well as at UMHC. The record of the initial assessment was unavailable in just one case. The average age of the children at initial assessment was 3.4 years, ranging from birth to 17 years of age. Of the 38 children diagnosed with FAS, 22 (57.9%) were diagnosed at birth or during the perinatal stay.

Of the 21 children who were evaluated as older children or adolescents, more than half were brought to a physician or psychologist for evaluation because of such behavioral problems as hyperactivity, attention deficit, poor judgment skills, and socialization problems. Six of these older children were evaluated for possible FAS/FAE secondary to psychiatric problems; these included chemical dependency, suicide attempts by overdose, schizophrenia, and depression. Another two were brought in by parents or foster parents for evaluation of developmental delay.

Table 1

General data

N total = 46	N	%
Sex		
Male	33	71.7
Female	13	28.3
Race		
American Indian	21	45.7
Caucasian	18	39.1
African American	1	2.2
Hispanic	1	2.2
Mixed	5	10.9
Alcohol-related birth defects		
FAS	38	82.6
FAE	7	15.2
Neither	1	2.2

Table 2

Prenatal/perinatal period

N total = 46	N	%
Prenatal care		
Good	4	8.7
Poor	20	43.5
None	8	17.4
Perinatal abnormalities		
Precipitous labor	4	8.7
Premature delivery	9	19.6
Infant born intoxicated	5	10.9

Regarding the particular characteristics of FAS, the children in this series are very similar to those observed in larger published series. Twenty-seven of the children had verified mental retardation or developmental delay (this information is not available for the infants who were seen only as newborns). IQ scores were known for 15 of the patients. Their average IQ was 69.7, as measured by the WISC-R. This corresponds well with Streissguth's study, which found an average IQ of 68 in a series of 61 patients.[8] The child who was not classified as either FAS or FAE had an IQ of 126. He was the son of an alcoholic mother who has other children with FAS and was seen for evaluation of socialization problems with his foster siblings. He had no other features of FAS or FAE.

Six children were born with con-

Table 3

FAS characteristics

N total = 46	Infants	Children/ adolescents	Total
Microcephaly	18	8	26
Short stature	17	12	29
Low weight	18	10	28

Number of individuals with microcephaly (defined as head circumference below fifth percentile of age), short stature (length/height below fifth percentile), and low weight (weight below fifth percentile).

Table 4

Neurologic abnormalities

N total = 46	N	%
Seizure disorder	8	17.4
ADHD	18	39.1

Table 5

Family environment

N total = 46	N	%
Living with biological mother	7	15.2
Foster care	30	65.2
Adopted	4	8.7

genital heart defects: three had an atrial septal defect (one of these children also had a ventricular septal defect); three had patent ductus arteriosus; and one had tetralogy of Fallot. Three children had cleft lip and/or palate. One adolescent had severe scoliosis that required vertebral fusion. Fourteen infants were described as very poor feeders.

Head circumference and height/weight data are summarized in Table 3. Eighteen infants and eight children/adolescents had microcephaly; one adolescent had normal head circumference but had microcephaly as an infant. Seventeen infants and 12 children/adolescents were below the fifth percentile for height for their ages; one adolescent was at the 25th percentile but had been born at less than the fifth percentile for length. Eighteen infants and 10 children/adolescents had weights below the fifth percentile; six children/adolescents were above the fifth percentile but had been below this level as infants. These data correspond well with other research showing that many older FAS/FAE patients never catch up in height and weight.

Table 4 summarizes neurologic abnormalities observed in these children. Eight infants and children had seizure disorders. Eighteen children and adolescents had hyperactivity, attention deficit, and significantly poor judgment. All of the children diagnosed with FAE had one or all of these behavioral disorders. (Again, for eight of these children, only the birth records are available.)

Many studies have suggested that FAS/FAE children seldom remain with their birth mothers; the reasons cited for this include the mother's difficulty coping with a hyperactive or developmentally delayed child. Also, mothers with drinking problems often have very poor coping skills or are unable to adequately care for another human being. Few FAS/FAE children in our study remained with their birth mothers, either. As Table 5 shows, 30 of these infants were in foster care, seven of whom were later adopted. Another four children were adopted as infants, generally by a family member. Two infants died in the perinatal period, and we have no information about three of the children. This suggests that only seven, or at most 10, of these children remained in the care of their biological mothers. On average, the children were first placed in foster care at 12 months of age.

Many studies describe increased medical costs related to the care of FAS infants due to prematurity and other problems. Thirteen of the children in this study were admitted to the neonatal intensive care unit. The average stay in NICU was 42.4 days, ranging from six to 140 days. Eight infants were hospitalized at a later time for failure to thrive. The incidence of feeding problems, such as severe regurgitation, congenital heart defects, and cleft lip/palate, often required surgical treatment. Four patients had been given other diagnoses (hemihypertrophy, odontogenic tumor–undifferentiated, Noonan's syndrome, and multiple benign hemangiomas) that may be related to FAS, but this relationship remains unproven.

Discussion

We found this series of FAS/FAE patients seen at UMHC to be very similar to other series described in the literature, although most study populations have equal numbers of boys and girls. Many of the findings are worthy of discussion. First, the mothers in our study clearly received inadequate prenatal care. Only four of 46 mothers reportedly had good prenatal care. Also, it is clear that these children, who are so needy of time and emotional and economic support, are not being cared for by their birth mothers. Additionally, only seven of 46 patients in our study were diagnosed as having FAE, although many experts suggest that FAE is more than three times as prevalent as FAS.

The study also makes clear the level of neurological handicap both FAS and FAE children possess. Recent studies of older FAS victims suggest that these young adults have significant problems holding a job and living independently.

No information about the women's drinking patterns or lifestyles was available, unless it had been specifically noted in the chart.

It should be pointed out that UMHC is a major referral center for the region, and thus some results may be skewed. For instance, most of the Indian reservations in Minnesota and South Dakota refer patients to UMHC; this undoubtedly contributes to the high proportion of American Indian patients in this study, as compared with the proportion of American Indians in the total regional population. Also, the fact that UMHC is a major referral center for high-risk and medically underserved persons may help account for the high rate of poor or no prenatal care among these mothers.

Economic Burden

The care of FAS/FAE children represents a considerable economic burden. Abel and Sokol in 1991 estimated the median cost of caring for an FAS patient to be $6,223 per year. Nationwide, based on a very conservative estimate of the prevalence of FAS (.33 in 100), the total annual cost for FAS was estimated at $74.6 million, most of which is due to costs related to low birthweight and mental retardation.[8] This value does not include estimated FAE costs, which likely are high since the prevalence of FAE is more than three times that of FAS—some studies suggest 10 times—and these children often have ADHD or other learning difficulties and require costly specialized schooling. Another study in 1985 attempted to calculate economic costs of FAS in terms of lost productivity and estimated a mid-range value for all FAS victims aged 18 to 64 in one year (1980) to be $853.3 million.[9] Closer to home, the Minnesota Department of Health used similar methods to estimate the cost of treating 200 FAS (not FAE) individuals in 1983 at $42 million (1983 dollars).[10]

Emotional Burden

The emotional expenditure for parents and foster parents caring for these children can never be quantified, although this may represent the most significant hardship. Self-help support groups are now being established in Minnesota with the aid of the March of Dimes.

Prevention

Fetal alcohol syndrome is the leading cause of mental retardation, is responsible for many physical deformities, and is also recognized as a cause of hyperactivity and attention deficit in children. The pattern of damage is permanent but is also completely preventable.

Primary prevention is, of course, the ultimate goal. Preventing FAS would mean that every woman of childbearing age would have the information that alcohol is detrimental to the development of a child, and any woman with potential to conceive would ideally abstain from drinking. "As soon as possible" may not be soon enough, as various studies have shown that the most critical time in embryonic development with respect to alcohol effects is from day 9 to day 41—before the woman is even aware that she is pregnant. Hanson and Streissguth found that "the strongest relationship between maternal alcohol consumption and fetal outcome seems to exist for drinking behavior in the month preceding pregnancy."[11]

Secondary prevention involves instructing pregnant women about the risks of alcohol consumption during pregnancy, the goal being cessation of drinking. Thus, the burden of secondary prevention rests largely on the ob/gyn or family practitioner who cares for the pregnant woman. A prenatal history should include questions about substance use for all women, regardless of race or social class.

Tertiary prevention, while the least desirable, is all too often the only prevention applied. Tertiary prevention entails early identification of FAS/FAE children. Many people suggest that identification or "labeling" of patients with a diagnosis such as FAS stigmatizes these children. However, as Rogan points out in her 1985 article, early identification "can facilitate the provision of appropriate and necessary social and educational services."[12] This is the point at which the children can be most aided; educators can be made aware of the special needs of these children, and individualized educational programs can be made more readily available. Also, special vocational training programs have been found much more successful than traditional schooling, as they are less abstract and more goal-directed, and the children can be taught useful living and working skills.

Other Issues

Many issues remain unclear. Paternal alcoholism may be responsible for a decrease in birthweight of up to 130 g, similar to that caused by maternal smoking, but it has not been clearly shown whether paternal alcohol consumption has any teratogenic effect on the fetus. Also, the extent to which dietary factors play a role has not been clearly established. As Hurley points out, folate, magnesium, and zinc deficiencies, which are common in alcoholics, are themselves teratogenic.[13]

Summary

The devastating effects of maternal alcohol consumption on infants has been well-proven by many groups. It is clear that these effects are lifelong. Not only do these children show lack of catch-up growth in height, weight, and head circumference, but Streissguth showed in 1991 that these children have severe, long-standing neurological deficits, as well.[14]

The goal for health professionals should be education and prevention at the earliest possible point to combat this devastating, costly, and preventable set of birth defects. **MM**

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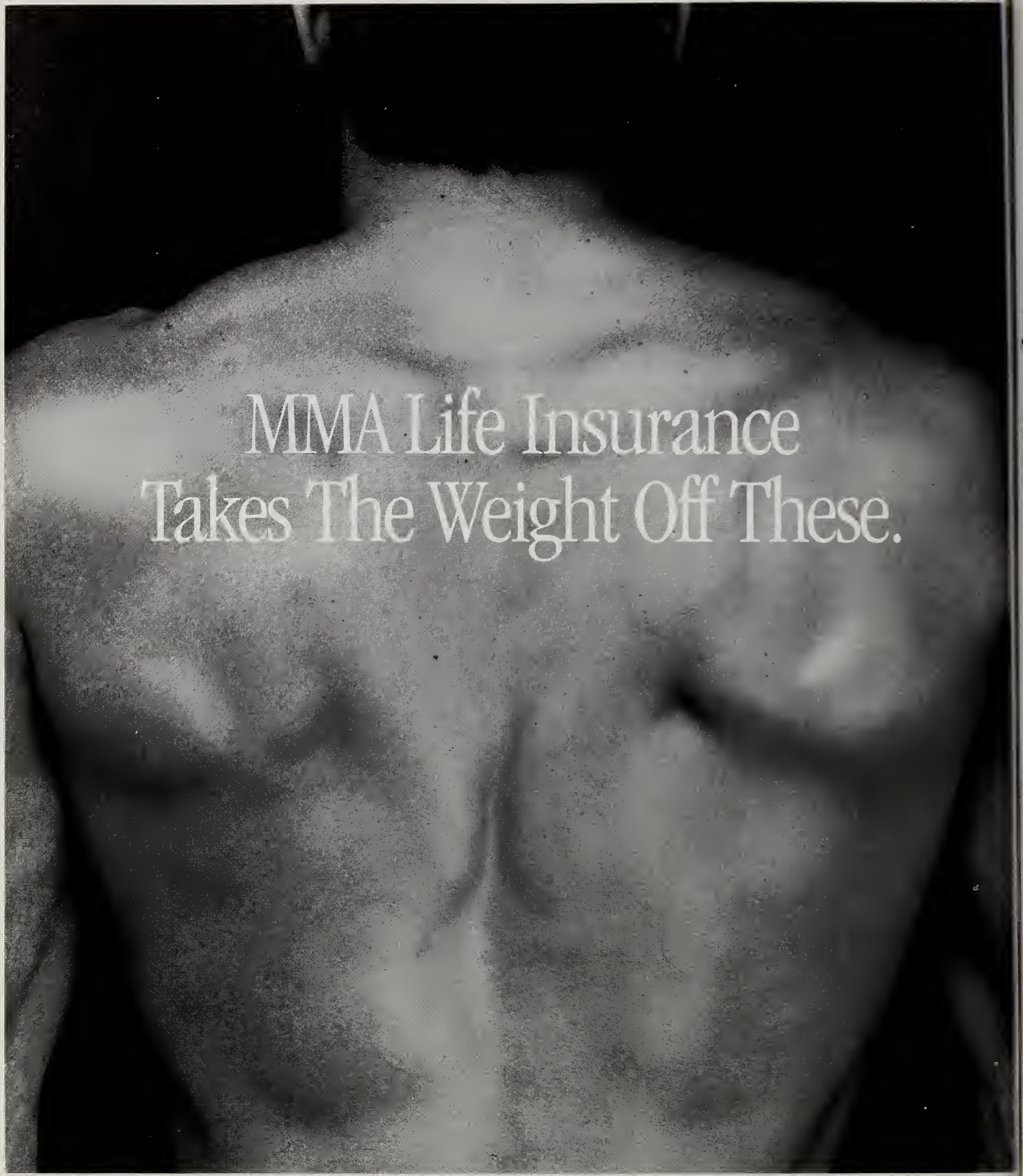
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MMA Peer Review Program to Monitor Quality of Care

Patricia C. Hanson, R.N.

The need to establish a physician-directed peer review program has never been more crucial than it is currently, and the Minnesota Medical Association is responding to this need by launching its own peer review program. Developed by an ad hoc committee of physicians over the past 18 months and approved by the MMA Board of Trustees, the program will focus on concerns related to quality of care; it will not review fee disputes or physician charges.

Over the past few years, public perception of the medical profession's ability to monitor and discipline its own members has eroded considerably. Physicians face the threat of increased external regulation of their practices unless they choose to self-regulate and mandate corrective action for breaches in accepted medical practice. Professional autonomy has deteriorated along with physician prerogatives in delivering health care. Decreased professional autonomy has made it all the more critical for professional medical associations to review, monitor, and discipline their own members.

Peer review has been described as "the foundation of professionalism in American medicine" and "essential to the existence of medicine as a profession."[1] Commentators have emphasized that the effectiveness of peer review activities may be the crucial factor in determining whether or not physicians maintain control over the standards of their profession.[2]

The vast majority of state medical societies and associations recently surveyed by the American Medical Association stated that they provide some type of peer review service. In Minnesota, county medical societies, hospital medical staffs, the state professional review organization, other medical entities, and the Board of Medical Practice perform peer review.

The MMA's new program will conduct peer review for members and, in certain circumstances, for non-members, and will respond to requests from entities outside the association that need assistance with peer review. In addition, the program's policies and procedures will provide protection for physicians who conduct peer review and a fair but rigorous procedure for those who undergo review.

> "Public perception of the profession's ability to monitor and discipline its own members has eroded considerably."

The MMA Peer Review Program

The MMA will offer both an "internal" and an "external" peer review program. The internal program, directed by the Professional Performance Review Committee, will primarily handle complaints and inquiries the association or a county medical society receives from patients and others concerning MMA members. To assure broad geographic representation, the 12 committee members will be selected from the MMA's seven trustee districts.

The external peer review program will provide qualified, impartial peer review for MMA members and non-members through contracts with outside entities and organizations that need assistance with the investigative phase of peer review. It will receive overall direction from the Peer Review Program Committee, whose members will be appointed by the MMA Board of Trustees. The physicians who perform the actual peer review will make up the Consultant Committee.

Internal peer review

The internal peer review program was developed in response to MMA concern that some county medical societies lack the necessary staff and resources to conduct peer review and that some are having difficulty finding noncompeting physicians to perform the review. Concurrently, the AMA has launched an effort to involve state medical associations in the overall review of peer performance and enforcement of professional practice and conduct. The AMA, through its Council on Ethical and Judicial Affairs, is encouraging state medical associations to "deal squarely with problems within the medical profession, insisting that physicians should adhere to a clearly stated code of conduct and that any breach of the conduct be dealt with aggressively on a state and local level."[3]

In the past, the county medical societies have conducted professional organization peer review in Minnesota, and the MMA has been a clearinghouse, referring complaints received to the appropriate county medical society for processing. The MMA's new peer review program will allow county medical societies to continue to conduct peer review if they choose to do so but will also provide its own peer review service should county societies request it.

Complaint processing: When the MMA becomes aware of a concern about physician behavior, usually through a written complaint or inquiry, it will contact the physician's county medical society to determine whether the county society wishes to process the complaint or have the MMA do so. The MMA peer review program will not usurp a county medical society's prerogative to resolve complaints and inquires itself.

Under the new program, MMA and county medical society members will be subject to review for the following reasons: alleged violations of the MMA or county medical society articles of incorporation or bylaws; alleged violations of the AMA's constitution, bylaws, or Principles of Medical Ethics; written patient or public complaints; conviction of a felony or any crime involving the practice of medicine; or alleged failure to cooperate with the MMA's professional performance peer review policy.

In an internal review, the peer review manager, an MMA staff person, will conduct an initial screening. The peer review manager will contact the physician under review to obtain information, including but not limited to a letter of response to the complaint and patient medical records. The peer review manager will then submit that information to a Professional Performance Review Committee member, who will review the patient complaint, the physician's response, and the other information collected, and may contact the physician and the patient to gather additional information. After review, the committee designee will determine whether the complaint should be 1) referred to an appropriate external agency, 2) referred to the Professional Performance Review Committee to determine whether the complaint establishes a basis for disciplinary action by the MMA Board of Trustees, 3) dismissed, or 4) handled by other appropriate action. If the complaint is referred to the Professional Performance Review Committee and the committee determines that the complaint establishes a basis for discipline, a formal peer review process will begin with due process protections to ensure the physician receives a fair procedure with rights to notice and a hearing. During this stage of review, a hearing is offered to the physician, who should have an attorney present at the hearing and may present evidence and call witnesses at this time. The physician may appeal the hearing panel's decision to the MMA Board of Trustees.

> "Professional autonomy has deteriorated along with physician prerogatives in delivering health care."

At the conclusion of the hearing or appeal, the MMA Board of Trustees will take formal action. In the case of an appeal, the board may accept the Appeal Committee's decision or send the decision back to that committee for further consideration; however, the MMA board is limited in its authority to reject an Appeal Committee decision and may do so only upon its written finding that the decision was arbitrary, capricious, or in violation of the professional performance review policy or law. Based on the outcome of the MMA-conducted peer review, the physician under review may appeal the decision to the AMA. As a result of the peer review process, the physician may be exonerated or may incur discipline by the MMA that could take several forms: expulsion or denial of membership for up to five years; suspension for a specified period of time up to five years; probation, which may include monitoring or periodic evaluation; or censure.

Any outcome other than exoneration could require that the physician complete an educational or other appropriate program or fulfill other requirements as determined by the Professional Performance Review Committee. Any final disciplinary action will be reported to both the Board of Medical Practice and the National Practitioner Data Bank, as required by law.

External peer review

The MMA developed the external peer review program for reasons similar to those underlying the creation of the internal review program. The external review progam is the result of an MMA House of Delegates resolution passed in 1991 responding to concern that geographic isolation and difficulty finding noncompeting physician reviewers were hampering peer review in hospitals and clinics, particularly in rural areas of the state.

The MMA's external peer review program will conduct review at the request of organizations and entities seeking assistance with the investigative phase of a review of an MMA member or a non-member physician. At the end of the external peer review process, a report will be provided that will be advisory only and will consist of four components: background information, findings of fact, conclusions, and recommendations when appropriate. The requesting entity or individual may act on the MMA peer review report, disregard it, or use only portions of it.

The MMA anticipates that the organizations and entities most likely to request MMA peer review include the Board of Medical Practice, county medical societies, hospitals, clinics, physician offices, and the state for purposes of its MinnesotaCare legislation.

MinnesotaCare, passed in 1992, calls for the MMA to become involved in peer review and expressly provides that the state may require peer review of physicians by the MMA or an appropriate health licensing board for "specific health care conditions for which practice in all or part of the state deviates from practice parameters" or "for specific conditions for which there are large variations in treatment method or frequency of treatment in all or part of the state."[4] According to the legislation, "peer review must determine whether the procedures conducted by practitioners are necessary and appropriate, and within acceptable and prevailing practice parameters ..."[4] It is anticipated that the state will need to collect and analyze data for at least two to three years before the data are sufficient enough to indicate potentially inappropriate variations in practice or statistically significant deviations from practice parameters. Therefore, the MMA peer review program does not expect to conduct peer review for MinnesotaCare until at least 1997.

The reviewers: External peer review will be conducted by one or more members of the Consultant Committee. In order to qualify as a Consultant Committee member, a physician must be an active MMA member, must be board eligible or certified in his or her specialty, and must participate in an annual MMA peer review consultant training program. It is essential that physicians who are involved with the peer review program have expertise and training in peer review. The MMA peer review program will train and screen all potential peer reviewers to ensure that they are cognizant of peer review principles, knowledgeable about the MMA peer review process, have no interests that may be construed as adverse to impartial review, and are not in professional competition with the physician under review.

Entities or organizations that request peer review by the MMA under the external review program will be charged a fee for the peer review process, and Consultant Committee members who conduct peer review will be reimbursed for their services.

Protection for Reviewers

Peer reviewers for either the internal or external program who conduct peer review in good faith will be indemnified by the MMA. They will also be protected by federal and state peer review laws that govern peer review activities and offer immunity for peer review conducted in good faith. The MMA has drafted peer review policies consistent with such laws to ensure as much protection as possible against liability.

Summary

The MMA believes its peer review program is fundamental to organized medicine's desire to monitor the profession while simultaneously improving the quality of care provided to Minnesota patients. The association also recognizes the need to assist outside organizations with peer review. The overall goal of the peer review program will be to assure the public that the MMA is willing and able to address public complaints and organizational concerns regarding physicians who do not comply with accepted practice and professional ethics.

Physicians interested in participating in either the internal or external peer review program should submit a letter detailing their experience in peer review activities, describing their professional experience, and listing their eligibility or board certifications. The MMA will be contacting interested and qualified physicians in the near future to organize the committees responsible for peer review. **MM**

For more information about the MMA's new peer review program, contact Patricia C. Hanson, R.N., manager of Quality, Data and Peer Review, Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414-3083; 612/378-1875 or 800/999-1875.

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Protecting Physician Assets from Litigation

Robert G. Danielsen, J.D.

Physicians do not need to be reminded of the malpractice litigation crisis in the United States. The number of suits filed against doctors and hospitals, as well as the size of settlements and awards, is growing. Insurance, increasingly expensive itself, has not solved the problem for physicians, and there is the very real risk that a judgment award from a generous jury could exceed standard policy limits by thousands, if not millions, of dollars.

This problem was illustrated recently by the product liability award against General Motors in the case of the 16-year-old who was killed in the crash of a GM truck. Although public attention focused on the punitive damage award of more than $100 million, the more relevant part of the verdict for potential individual litigants smaller than GM is the compensatory damage award. The jury awarded more than $4 million to the parents of the 16-year-old as compensatory damages for his loss. Damages awarded for the loss of an employed head of a family can be even greater, illustrating the potential for stunningly large jury verdicts in malpractice cases.

Although malpractice is the liability exposure physicians most commonly recognize, physicians' wealth makes them targets of lawsuits from any direction. The litigation crisis in this country has produced liability in an amazing variety of contexts. Partnership investments, residential or other real estate ownership, divorce, even driving a car can all give rise to a lawsuit because the physician's assets provide a lucrative target for plaintiffs' attorneys representing parties with a claim. Not infrequently, damages awarded in automobile fatality cases are clearly beyond the insurance policy liability limits. Plaintiffs' counsel routinely asks for a financial statement before deciding whether to proceed against the defendant directly after the insurance company has tendered the limit of the policy in settlement. An indigent defendant inspires no interest on the part of plaintiffs' counsel, but a wealthy physician is an entirely different matter.

> "The litigation crisis in this country is making asset protection a priority for anyone with substantial financial assets."

As an experiment, check your automobile liability policy and determine the limits for personal injury liability. You will probably find that your limit is below $1 million. Considering the potential for jury awards substantially in excess of that, the kind of exposure facing individuals with substantial assets becomes obvious. The fear of losing accumulated savings is especially great for physicians at or nearing retirement because it is too late to earn those savings back if they are lost.

Traditional Alternatives for Protecting Assets

Physicians have used a variety of strategies to limit liability exposure and protect assets. Each technique is worth exploring to determine its limitations and problems.

Corporations

Many physicians in private practice have incorporated their practices. In general, liabilities arising from the corporation's activities are satisfiable only against corporate assets. However, this protection is limited to the corporation's business activities; incorporation does not protect against the physician's personal liabilities. The physician's liability for malpractice cannot be insulated with a corporation because state law provides that such liability remains personal to the physician.

Spousal transfers

Many physicians have put assets in their spouse's name to protect the assets from the physician's liability exposure. Of course, the first problem with this approach is that the assets are now subject to the spouse's own liabilities, many of which are joint with the physician (such as joint ownership of an automobile). Perhaps more important, such transfers are subject to the sham transaction doctrine, under which a court may set the transfer aside on the grounds that the physician has retained enjoyment or control of the assets and, therefore, the transfer was not bona fide. In addition, death of the spouse may complicate or destroy the strategy, as the assets may be trapped in trusts created for estate planning purposes or returned to the surviving physician, which puts the physician back at square one. And, of course, the spouse transferee may become a creditor of the physician, in a divorce, for example.

Transfers to family members other than a spouse have all the same problems, with the additional concern that substantial control over the assets is surrendered and may even be lost completely in the event of the transferee's death. As a result, transfers to the spouse or other family members are generally not recommended as a means of asset protection.

Limited partnerships

The main idea behind using limited partnerships for asset protection is that if a plaintiff secures a judgment against a physician and tries to collect it by seizing a physician's limited partnership interest, the only thing the plaintiff can get is a *charging order*. Basically, this means the plaintiff would only be entitled to a distribution on the limited partnership interest, if any, and could not force a sale of the interest to satisfy the judgment. The limited partnership strategy is not entirely beneficial because, in order to avoid making distributions outside the partnership, the physician restricts his or her own access to the assets. And again, as long as the physician retains control over the partnership assets, directing their investment and the timing of any distributions, a court may well determine that the device is a sham and allow the plaintiff to levy on the partnership's underlying assets.

Qualified retirement plans

Most people assume that assets in qualified retirement plans, such as pension and profit-sharing plans, are protected from creditors. But these plans may not be as safe as they appear. In general, the Employee Retirement Income Security Act (ERISA), the federal legislation that governs qualified retirement plans, provides that creditors of plan participants may not levy on qualified plan assets. But this protection has its limits. For example, it does not extend to plans where only the physician owners or their spouses are beneficiaries. Nor does ERISA provide protection for individual retirement accounts (IRAs), which physicians commonly use to roll over qualified plan distributions. Some states, such as Minnesota, purport to extend creditor protection to IRAs, but many benefits lawyers argue that such state protection is ineffective because ERISA has preempted state action on this issue. Although a Minnesota bankruptcy decision held that ERISA does not preempt on this issue, the opinion's reasoning is unusual and ignores important U.S. Supreme Court cases, leaving benefits lawyers to fear that a creditor could prevail in the right case. There is also uncertainty as to whether, or under what circumstances, qualified plan distributions are protected from creditors after they leave the protection of the qualified plan. In other words, the assets may be safe while they are in a plan trust, but they may not be safe in the hands of a retired physician once they are distributed. There is no firm answer in the context of ERISA. Minnesota law purports to protect assets after distribution, but only if the assets are traceable, meaning that a physician may not commingle retirement plan distributions with other assets. Again, this purported state law protection is highly suspect because ERISA, in general, preempts state law in these areas. Also, if assets are moved to another state, they may not receive the protection of Minnesota law. The bottom line is that there are many uncertainties concerning qualified plan benefits, justifying special caution in this area. And, with many physicians facing substantial federal tax penalties for excess accumulations in qualified plans, the extent to which they can protect their assets in qualified plans is limited.

> "Physicians' wealth makes them targets of lawsuits from any direction."

Liability insurance

In addition to malpractice insurance, it is possible to purchase insurance for a variety of liabilities. Unfortunately, such policies are more famous for what they don't cover than for what they do cover. In addition, they are becoming increasingly expensive, and a physician may not be able get sufficient policy limits at any price.

Hiding assets

Few physicians would consider hiding their assets from creditors, which usually involves placing assets offshore. Unfortunately, this strategy requires lying under oath, thus converting a civil liability exposure into a criminal matter and making it a generally unpalatable option.

Foreign-Situs Trust Solution

The overall problem with the strategies described above is that as long as assets are subject to the jurisdiction of a local court, there is the risk that a judge will find some reason, and some legal theory, to justify delivering the assets to a creditor. Establishing a trust with at least one trustee located in a foreign jurisdiction may be a better solution.

Asset protection planning, employing a discretionary trust with a foreign-situs trustee, is a means of placing title to assets beyond the reach of unexpected creditors. In other words, a litigant may be able to convince a court or jury to award a judgment, but the litigant will not be able to enforce the judgment against the protected assets. This strategy maximizes protection for assets and minimizes loss of control, as the assets are still available to the physician/grantor of the trust and his or her family. This arrangement also effectively makes the physician a much less attractive target to begin with, which often produces a dismissal of the suit or perhaps a settlement for a *di minimus* amount.

The essence of the strategy is that the holder of legal title to the assets is not subject to the laws of our domestic courts, but rather to the laws of a foreign jurisdiction. Many jurisdictions around the world are common law jurisdictions like the United States, but their laws, unlike that of the United States, recognize the concept of *grantor created spendthrift trusts,* meaning that a person can give assets to a trust over which he or she does not retain complete control, remain a beneficiary of the trust, and yet not expose the assets to his or her judgment creditors.

In addition to taking advantage of more favorable trust law in foreign jurisdictions, a foreign-situs trust is beneficial simply because potential plaintiffs must prosecute their action in a faraway place, under a different legal system, employing foreign attorneys who are not allowed to work on a contingent-fee basis (the United States is the only common law jurisdiction that allows contingent fees).

Using a foreign-situs trust does not mean that investments must be changed or shifted to offshore locations. Just as with a revocable trust used to avoid probate for estate-planning purposes, the use of an asset protection trust involves transferring asset titles to the trustees, not shifting the assets themselves. In addition, foreign-situs trusts are tax neutral, so they do not constitute a tax dodge that would attract the ire of the IRS. The income from the trusts is still taxable to the physician, there is no completed gift requiring a gift-tax, and the assets are still taxable in the physician's estate.

The foreign trustees are trust corporations with substantial experience in international financial management. Concerns about the safety of involving foreign parties in one's finances are allayed by the use of bonds and joint signature accounts that preclude the trustee from accessing assets without the knowledge and consent of the physician client.

Conclusion

The litigation crisis in this country is making asset protection a priority for anyone with substantial financial assets, especially those in high-exposure professions, such as medicine. Traditional methods of protecting assets have proven insufficient, leading many physicians to employ foreign-situs trusts as the most convenient and effective means of securing their assets. **MM**

Robert Danielsen is an attorney and principal with the Minneapolis-based law firm of Sherman & Danielsen, Ltd., specializing in compensation planning and estate planning, with an emphasis in offshore financial planning.

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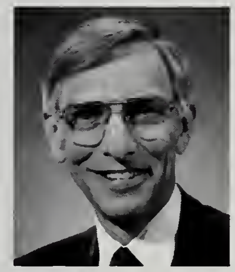
So Someone Wants You to Join an Integrated Service Network...

A. Stuart Hanson, M.D.

The Minnesota Health Care Commission presented its long-awaited report, "Containing Costs in Minnesota's Health Care System," to Gov. Carlson and the Legislature in January. The centerpiece of the report is the concept of competing Integrated Service Networks (ISNs), which, if accepted, will provide care in the state's new health care system. Are ISNs something new, or are they merely a version of the managed care plans we now call HMOs and PPOs? Will physicians find practicing in these new conceptual systems significantly different from what they're accustomed to? No one knows, and anxiety runs high among all interested parties.

An ISN is a formal organization financially accountable for delivering a full continuum of health care services to a defined population for a fixed payment amount. To begin with, it sounds like an HMO or PPO insurance plan. In fact, the commission has left the structural features of the ISNs rather vague. The requirements ISNs must meet will be more flexible than those for HMOs, which must be organized as not-for-profit entities. For-profit ISNs may be allowed, and providers will be encouraged to form them if the Health Care Commission's proposals are accepted by the governor and Legislature.

Conversely, the government will heavily control many aspects of the new ISNs if they are approved. The commissioner of health will establish a limit on the rate of growth of each ISN's costs (and revenues). Limits will be adjusted to changes in enrollment, severity of illness, benefit design, and financial risk. Each ISN must bear financial risk for its defined population through either reserves or reinsurance protection.



"Are ISNs something new, or are they merely a version of the managed care plans we now call HMOs and PPOs?"

Enrollment in an ISN cannot be denied to someone with a preexisting condition (traditional insurance underwriting will be eliminated), and adjustments will be made for enrolling high-risk individuals or populations. Medicare, Medicaid, General Assistance Medical Care, and MinnesotaCare populations will all be eligible for enrollment eventually. And, if the concept succeeds to its full intent, ISNs will have direct incentives to enroll individuals at risk for costly illnesses or with special medical or social needs.

In return for authority to form a collaborative health care service network, ISNs will be required to satisfy state quality and cost standards. They will be required to submit data and other information on health care revenues, prices, costs, utilization, and quality. Standard reporting by each ISN would permit regulators, planners, payers, and consumers to analyze and disseminate information, making direct comparisons among ISNs possible. This would also promote competition among ISNs based on quality, cost, and supplemental benefits.

The Minnesota Health Care Commission and the Legislature will define a basic benefit set that the ISNs will be responsible for providing to their defined populations for a fixed payment amount. The MMA will be closely involved in the debate on how these benefits will be defined.

Collaboration between providers, such as physicians, hospitals, and home care organizations, will be encouraged, and antitrust protection will be afforded if the collaboration is part of the state health reform program. Eventually, the Health Care Commission envisions most providers in Minnesota participating in one or more ISN. Incentives will encourage participation by consumers and providers, but participation will not be mandated for either. Patients and providers who do not join ISNs but keep more traditional health plans, such as indemnity insurance or non-ISN managed care (current HMOs, PPOs, and direct employer contracting), will be under stringent regulatory controls. A consultant to the commission will recommend mechanisms for overseeing the non-ISN system.

All this may sound like too much change too fast. Everyone fears dislocation of patients and providers, and there are other serious concerns about the effect ISNs would have in both urban and rural areas. While recognizing the innovative yet experimental nature of the ISN concept, the MMA Board of Trustees is willing to work with the commission and the Legislature to design a regionally acceptable health care delivery system, which may include designing competing ISNs or a single collaborative network in a region. MM

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References:
1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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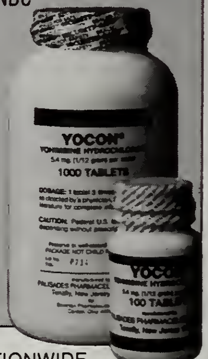

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People and Places Making Medical News

People

'U' Health Sciences VP Resigns

Robert Anderson, M.D., vice president of health sciences at the University of Minnesota since February 1992, has resigned from the position effective August 11. He will remain on the medical school's faculty in laboratory medicine and pathology.

"After several months of reexamination of my professional career, including some 25 years in various administrative posts, I've found that I honestly want to return to the activities I trained for and enjoy the most—teaching, research, the practice of medicine," he said. Anderson said he is committed to finishing important efforts in health sciences' strategic plan, but he does not want to devote the rest of his career to "dealing with court cases and controversies." A federal grand jury is investigating management in the university's ALG drug program, and additional litigation became likely when university psychiatrist Barry Garfinkel, M.D., was indicted on fraud charges (see "'U' Evaluating Med School Problems," page 42).

Anderson came to Minnesota from the University of New Mexico School of Medicine, where he was a professor and head of pathology.

EMS Director of the Year

Jo E. Anderson, M.D., has been named the Minnesota Ambulance Association's 1993 EMS Director of the Year. A family physician at the Mankato Clinic, he has volunteered with the Le Sueur Ambulance Service since 1986.

Anderson was recommended for the award in 17 letters from colleagues and acquaintances. Ambulance Association President Randy Tiegs said rural ambulance services have a difficult time finding medical directors willing to commit large amounts of time. "Dr. Anderson has always remained available to assist us in any possible way. ... [He] is a great asset to the Le Sueur Ambulance Service," he said.

Fairview Riverside Chief of Staff

Kent Molde, M.D., a radiologist, has been appointed 1993 chief of staff at Fairview Riverside Medical Center. Before joining the Fairview Riverside staff in 1976, Molde served two years as a major in the United States Air Force. He is a partner with Suburban Radiologic Consultants, Ltd.

Harry Hoppmann, M.D., a urologist, has been named chief of staff elect. A partner with Urologic Physicians, P.A., in Minneapolis, he has been on staff at Fairview Riverside since 1980. Prior to his medical career, he served two years in the United States Navy as a lieutenant commander.

St. Joseph's Emergency Services Director

HealthEast St. Joseph's Hospital of St. Paul has appointed Jeffrey Groshens, M.D., director of emergency services. Previously, Groshens was a staff physician in emergency services at HealthEast Midway Hospital, St. Paul, and earlier was on staff at United Hospital and worked as a primary care physician in rural Minnesota.

MCG HealthCare Compensation President

Don Wegmiller is leaving HealthSpan Health Systems Corp., formed recently by the merger of HealthOne and LifeSpan, to become president of MCG/HealthCare Compensation of Minneapolis, a firm that specializes in executive compensation for health care companies. Since the merger, Wegmiller has been vice chair and president of HealthSpan. He starts the new job at MCG this month.

Medica Foundation Director

Michael Christenson, chief administrator for the Metropolitan Transit Commission (MTC) since December 1990, joined the Medica Foundation as its executive director effective March 29.

At MTC, Christenson turned around an 11-year decline in ridership and helped generate one million new riders in the last seven months of 1992. Last October he was named "Transit Professional of the Year" by the Minnesota Public-Transit Association.

MetroEast Plan Director

Debra A. Trautman has been appointed director of MetroEast Plan, a self-insured program being developed by HealthEast for the medically underserved in the east metro area.

Trautman is a former Medicaid product manager for United HealthCare of Minnetonka and Medicaid director at Preferred One of St. Paul.

Fairview Board Chair

Gerald W. Simonson has been elected chair of the Fairview board of directors. Involved in Fairview activities for more than 20 years, Simonson is president and chief executive officer of Omnetics Connector Corp. and of Unisource Corp. and is a venture capital investor. He was president of the Metro Hospital Trustee Council in 1991. He succeeds Clinton A. Schroeder, principal in the law firm of Gray, Plant, Mooty, Mooty and Bennett, who served as chair for five years and will remain a board member.

MMA Auxilian Elected to Metropolitan Council

Gov. Arne Carlson appointed Mary H. Smith of Orono to represent District 13 on the Metropolitan Council for the next four years. Smith serves on the Minnesota Medical Association Auxiliary. Her husband, Andrew J. K. Smith, M.D., is chair of the MMA's Board of Trustees.

Christine Busalacchi Dies

Christine Busalacchi, the severely brain-injured woman whose injury sparked national right-to-die debate, died in March after her feeding tube was removed. She was transferred to Barnes Hospital in St. Louis, Missouri, February 18, where a team of neuroscientists determined she was in a persistent vegetative state. The hospital didn't say when her feeding tube was removed.

Busalacchi had been comatose since 1987, when she suffered severe head injuries in a traffic accident. Her father fought a long court battle over whether he had the right to allow her feeding tube to be disconnected. At one point, he sought to transfer his daughter to Minneapolis, where state law would have allowed doctors to disconnect her feeding tube, but hospital officials in Missouri obtained a court order to thwart his effort. Lengthy legal battles finally ended this year, when Missouri's newly elected attorney general decided not to pursue the state's efforts to keep Busalacchi alive.

Places

'U' Evaluating Med School Problems

The University of Minnesota decided in March to spend up to $900,000 to decide what to do with its ALG drug program and what to do about management problems within the medical school. The university will spend up to $500,000 for investment bankers and consultants to identify possible organizations to buy the ALG program or to join the university in operating it. The university will also consider continuing the program itself or shutting it down. The money is from a fund containing proceeds from the sale of ALG and related drugs.

Meanwhile, the university will spend up to $400,000 to hire Deloitte & Touche Management Consulting Group to analyze management of the medical school, including the roles and responsibilities of key managers. The money will come from university contingency funds, which are generated from interest on university fund balances.

In February, University President Nils Hasselmo asked John Najarian, M.D., to resign as chair of the Surgery Department as a result of failures in managing the ALG transplant drug program, which, contrary to federal regulation, had sold the drug at a profit (see *Minnesota Medicine*, March 1993, page 37). The FBI began investigating the program in December, and, since then, other allegations of impropriety have surfaced at the medical school. The FBI also has been investigating allegations that a woman embezzled $260,000 from a bank account used to pay sperm donors. In addition, psychiatrist Barry Garfinkel, M.D, director of the Child Adolescent Division of the university's Psychiatry Department, was indicted in February by a federal grand jury on charges that he committed fraud in an experimental drug study. (Although calling the charges unfounded, he has temporarily stepped down from his position as director.)

Group Health/MedCenters Forms 'HealthPartners'

Group Health and MedCenters have selected HealthPartners as the name of the company created by their August 1992 affiliation. With more than 582,000 members, HealthPartners is the largest managed health care organization in the Twin Cities. It is licensed in Minnesota to operate as an HMO, but it currently offers health plans to members primarily through Group Health and MedCenters. It will offer products that integrate the two networks beginning in 1994.

HealthPartners introduced its first product, Choice Plus, in mid-1992. The plan was developed in partnership with Mayo and Park Nicollet clinics to serve members of the Business Health Care Action Group, a buying group representing 14 large companies.

'U' and Group Health Receive Grant to Study Depression

The University of Minnesota in partnership with the Group Health Foundation has been awarded a $1.2 million grant to conduct a five-year study to determine the association between the use of antidepressant drug therapy in the elderly and overall health status. The study, which involves 500 Group Health patients over age 65, will determine the difference in health status between those treated and those not treated with antidepressant drugs.

Study investigators also hope to determine whether it is possible to predict which patients are more likely to respond positively to antidepressant drug therapy and the extent to which primary care physicians recognize symptoms of depression in the elderly.

The study is being funded by the Agency for Health Care Policy Research, part of the U.S. Department of Health and Human Services. The principal investigator is Judith Garrard, Ph.D., professor of health services research at the Institute for Health Services Research at the University of Minnesota School of Public Health. Sharon Rolnick, Ph.D., research investigator at the Group Health Foundation, is the co-principal investigator.

Chiropractors and HMOs Launch Study

The Minnesota Chiropractic Association and Minnesota's three largest HMOs, Blue Plus, HealthPartners, and Medica Choice, are conducting an 18-month collaborative study to evaluate chiropractic care in a managed care setting. Called the HMO Chiropractic Research Alliance, the study will evaluate chiropractic and medical treatment for common disorders, including headaches and backaches. The study will look at what happens to costs and patient satisfaction when consumers have direct access to chiropractic care. It is financed by the HMOs and the association, which have raised $25,000.

Until now, patients enrolled in Minnesota HMOs have been generally unable to see a chiropractor without first obtaining a referral from a medical doctor. Through the study, a specified group of patients will have direct access to chiropractic services.

One of the study's main objectives is to determine whether health care costs are significantly lowered by increasing consumer access to chiropractic care. The study will also evaluate whether more consumers select chiropractic care when it is more accessible. Research will be led by Thomas Choi, Ph.D., a health services researcher at the University of Minnesota.

UHC Offers Prescription Plan for Retirees

United HealthCare Corp., based in Minnetonka, Minnesota, has started a prescription drug program that it says will save corporations up to 40 percent on drugs used by retirees older than 65. It has set up a computerized pharmacy network of 25,000 pharmacies that sell specific prescription drugs at wholesale prices.

Many companies cover prescription drugs as part of retirement benefits, but the drugs can be costly and are frequently excluded under Medicare supplemental policies. United's program is designed to lower the cost of providing these drugs.

Corporations will pay United for the service, called Diversified Senior Rx. Eventually, retirees may be able to use the service directly, but initially corporations will be the only customers.

North Memorial Begins Clinical Research Program

North Memorial Medical Center of Robbinsdale, Minnesota, inaugurated its North Memorial Clinical Research Program in March. It is a coordinated program in which clinical studies can be performed in an inpatient or outpatient setting. Phase I, II, III, and IV studies may be conducted.

The program is a service available to physicians, pharmaceutical companies, and other health care professionals who want an organized structure for carrying out research.

Michael G. Somermeyer, M.D., has been named medical consultant for the program. He has been actively involved with research through his practice with Kidney Disease and Critical Care Associates.

Socioeconomics

Humphrey Proposes Health Care Cost Controls

Attorney General Hubert Humphrey III proposed in March methods to control health care costs to supplement proposals by the Minnesota Health Care Commission. He called for controlling prescription drug costs, combating health care fraud, and giving consumers a stronger role in restraining health care costs. He said that as a consumer advocate and law enforcement officer, he wanted to get his ideas "into the mix."

Specifically, he proposed banning gifts to doctors by pharmaceutical manufacturers, allowing pharmacists to dispense generic drugs unless otherwise directed by physicians or patients, and changing state drug purchasing practices. He also suggested that consumers be given more information. The General Accounting Office, the investigative arm of Congress, has estimated that 99 percent of hospital bills contain overcharges, he said. He proposed that consumers be given itemized, "plain language" copies of medical bills. He also would require medical networks to include prices and consumer costs in their advertising and would allow consumers to sue for triple damages if they are overcharged.

He proposed making kickbacks and hidden referral payments among health care providers a crime. In addition, he said health care fraud consumes 10 cents of every health care dollar, and he proposed adding a specialized health care fraud team of three attorneys, two investigators, and two secretaries to his office, at a cost of about $300,000.

St. Francis Affiliates with HealthSpan

St. Francis Regional Medical Center in Shakopee is affiliating with HealthSpan, the state's largest hospital organization. "Because of trends in health care delivery, it was evident ... that for St. Francis to continue its mission it needed to become associated with a larger network of providers," said Sister Kathleen Hofer, chief executive of Benedictine Health Systems, the hospital's owner.

With the affiliation, HealthSpan will extend its geographic presence in the Twin Cities, which is concentrated in Minneapolis, St. Paul, and the northern suburbs.

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Wellstone Offers Health Reform

Sen. Paul Wellstone and other democratic legislators in March offered their solution to the health care crisis through legislation that would establish a Canadian-style health insurance system over the next two years. The bill would make government the single health insurer for all citizens. President Clinton and his health reform task force have so far talked of managed competition to control costs and provide access to care, but Wellstone and other opponents of managed care said in a news conference that it is a tepid, untried reform that preserves high profits for medical and insurance interests.

Wellstone's bill proposes that employers no longer be responsible for paying health premiums. All citizens would have access to health care, financed primarily by an increase in the Medicare payroll tax from 1.45 percent to 7.9 percent and by an increase in corporate, employer, and income taxes.

"Individuals and families would benefit because they would no longer have to pay insurance premiums and other out-of-pocket expenses, so the amount they pay for health care will actually decrease," said Wellstone. Income taxes would rise $285 for a family of four earning $43,000 a year, according to a chart distributed at the news conference, but the family would save an overall $1,575 in reduced health costs.

Rates, Trends, Data

School Clinics Haven't Reduced Birthrate

School health clinics in St. Paul have not reduced birthrates since their establishment about 20 years ago, according to a study published by the Alan Guttmacher Institute in its magazine, *Family Planning Perspectives*. The results differ from earlier studies showing significant cuts in teen birthrates after the clinics opened.

The St. Paul schools had a birthrate of 22 births per 1,000 female students before the clinics were established, but the study shows an average of 28 births per 1,000 in the six years after the clinics opened. At Central, the rates were 34 before the clinic opened in 1976 and an average of 33 in the following six years; at Washington/Como Park, 21 before the clinic and an average of 24 after six years; at Humboldt, where a clinic opened in 1981, there were 26 births per 1,000 females before and 26 after; and at Johnson, the birthrate was 15 before a clinic was opened in 1981 and 28 after.

Past studies showed a drop in the birthrate from 59 per 1,000 in the 1975-76 school year to 33 per 1,000 in 1988-89, but researchers said those studies included only births known by clinic staff members. The new study matched school records with county birth records.

Advocates say the clinics are important nonetheless. "They provide needed access to health care, health promotions. That's the greatest contribution for school-based clinics," said Donna Zimmerman, executive director of Health Start, which operates the six school clinics in St. Paul.

Few Minnesota Physicians Smoke

Only 9 percent of practicing physicians in Minnesota smoke tobacco, according to a poll reported in the March 11 *American Journal of Public Health*. That's compared with 25 percent of all Minnesota adults, according to a *Star Tribune*/WCCO-TV poll conducted last year. "This shows that physicians, who should be leaders in health promotion, are following good advice in their own lives," said Donald Hensrud, M.D., a preventive medicine specialist at Mayo Clinic who headed the study.

A sampling of 389 doctors was chosen to represent all practicing physicians in Minnesota. Only 4 percent of the doctors in their 30s reported they smoke, but 15 percent of those in their 60s said they smoke. Only one of the 51 women physicians in the poll was a current smoker.

Innovations

Breast Implants Can be Tested for Leaks

A new device is available in several Twin Cities hospitals for women who fear their silicone-gel breast implants have leaked. The device, called a dedicated breast coil, uses MRI and is a safe and painless means to pinpointing leaky implants. It was developed in Germany in the mid-1980s.

The first breast coil was brought to the United States last year, and now slightly more than a dozen are used around the country. In the Twin Cities, they are available at several hospitals, including HealthEast's St. John's in Maplewood, Abbott Northwestern in Minneapolis, and the University of Minnesota.

The University of Minnesota is using the breast coil in a study to determine whether mammograms, CT scans, ultrasound, or the breast coil is the most accurate for detecting leaks. The study will involve about 75 patients who are scheduled to have their implants removed. Before surgery, the patients will undergo all four tests, and the results will be compared with what the surgeons actually find. Preliminary work suggests that the MRI may be the most accurate predictor of leaks, said one of the study's principal investigators.

Medical Research

Symptoms of E Coli Infection Should be Investigated

Children with symptoms of E coli bacteria infection should be tested immediately, said a researcher at the Minnesota Department of Health in a study published in the February 17 *Journal of the American Medical Association.* The bacteria, which is found in cattle and can contaminate ground beef, killed two children and left hundreds ill in the northwestern United States earlier this year. Most of the cases were traced to undercooked hamburgers served in Jack-in-the-Box fast-food restaurants.

The infection is most severe in younger children and the elderly. Infected children run the risk of developing hemolytic uremic syndrome, or HUS, a life-threatening complication that causes kidney failure and abnormal bleeding that can trigger strokes.

Researchers studied nine Minnesota day-care facilities with children under age 5 known to be infected. The goal was to determine how often the bacteria is spread among children. Thirty-eight of the 254 children who attended the nine centers eventually became infected with the bacteria. In one center, 18 of 80 youngsters became infected. Five of the infected children developed HUS. Sixteen percent of the infected children did not show any symptoms, a sign that it may be difficult to control spread of the bacteria.

Angioplasty and t-PA Equally Good Clot Busters

Clot-dissolving drugs restore blood flow during a heart attack just as well as the more complex balloon angioplasty procedure, according to an article in the March 11 *New England Journal of Medicine* by researchers at the Mayo Clinic.

"This finding should be of great benefit to patients," said Raymond Gibbons, M.D., Mayo Clinic cardiologist and principal author of the study. "Drug therapy is available in virtually every hospital across the United States. The balloon procedure is available only at larger medical centers."

The study assigned 108 patients who had suffered acute heart attacks to one of two therapies. Half received the clot-dissolving drug tissue plasminogen activator over four hours. They were then observed carefully for the next week. If their chest pain returned, they were treated promptly with medicines or balloon angioplasty.

The other half received balloon angioplasty. This procedure is almost always successful initially, although the vessel may again

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become blocked over the next six months.

By using a radioactive material and imaging technique, the researchers were able to measure the potential size of the heart attack before treatment and the actual size of the heart attack after treatment. Gibbons and colleagues determined the amount of heart-muscle saved by comparing these two numbers. These measurements showed that both treatments reduced the size of the heart attack by 50 percent. Many patients did not come to the emergency room until they had chest pain for more than two hours. The benefit of either therapy would almost certainly have been greater if the patients had come to the hospital sooner, said the researchers.

The study also showed that the cost of the therapies was about the same. They included expenses for hospitalization as well as days taken off for work and change in personal income. When the researchers compared the amount of heart muscle saved with the cost of therapy, they found no substantial difference.

Hemoccult Unreliable for Detecting Colon Cancers

Hemoccult, the most widely used stool screening test, is unreliable for detecting colorectal cancers and intestinal polyps, according to a Mayo Clinic study published in the March 10 *Journal of the American Medical Association*. The study found that the test failed to detect more than 70 percent of colorectal cancers and more than 90 percent of polyps found in follow-up examinations of more than 13,000 patients who took the tests. It found a positive test result truly predicted a cancer less than 10 percent of the time.

Researchers say that blood in the stool was usually caused by some reason other than cancer.

The study also looked at another test, HemoQuant, which is more sensitive in detecting fecal blood. It was found to be equally ineffective as a screening tool.

"The point is, it doesn't matter how well you detect blood in the stool," said David Ahlquist, M.D., a Mayo gastroenterologist who directed the study. "Fecal blood is a poor marker for colon cancer." He said that doctors and patients who choose to do periodic stool blood testing "should be cognizant of its major limitations." MM

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A Target for Preventive Health Measures

Edmund C. Burke, M.D.

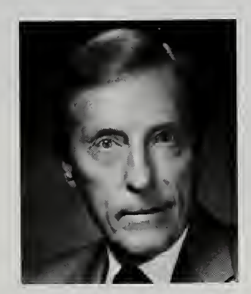
Improving adolescent health should be a major objective in the current trend to promote healthy lifestyles. The obstacles to attaining this goal are plentiful, and prominent among them is adolescents' seeming indifference to outside influence.

"The attitudes and behaviors molded during adolescence often determine the lifestyle and health habits of adulthood," write M. Joycelyn Elders, M.D., and Jennifer Hui in a March 17 editorial in the *Journal of the American Medical Association*. "Improving the health status of adolescents is critical to improving the health status of the population."

First, let's take a look at what's affecting the mortality and morbidity of today's youth. Elders reports that injury and violence account for three out of four adolescent deaths. Homicide is the second leading cause of adolescent death, suicide the third leading cause, and HIV infection is now the sixth leading cause of death in 15- to 24-year-olds. Regrettably, Minnesota is now among the top 10 states for youth suicide rates (see "Violent Teen Deaths on the Rise," page 40).

Elders also states that about 10 percent of 15- to 19-year-old girls become pregnant each year. In addition, about 36 percent of high school students report tobacco use, 37 percent binge drinking, 14 percent marijuana use, and 2 percent cocaine use.

A study of 602 inner-city adolescents as they entered young adulthood showed that knowledge about HIV-infection and its prevention does not lead youths to modify their behavior. Arlene Rubin Stiffman and colleagues studied the change in total number of risk behaviors in these 602 adolescents, as reported in the May 1992 issue of *Pediatrics*. Those whose risk behaviors increased the most were the most likely to know someone who had died of AIDS. Additionally, the majority said they do not use condoms regularly.



"How can we launch an intensive campaign to improve adolescent health when the statistics are so dismal?"

How can we launch an intensive and concerted campaign to improve adolescents' health when the statistics are so dismal? We must start with primary care physicians.

Because adolescents view health care providers as credible sources of health information, all encounters with adolescents in the physician's office should include appropriate questions regarding adolescent behavior and risk-taking activities. "Failure to provide such intervention could be interpreted by the adolescent as tacit approval for engaging in health-damaging behaviors," write Susan G. Millstein, Ph.D., et al., in the March 17 *JAMA*. The American Medical Association has prepared a publication called "Guidelines for Adolescent Preventive Services" (Williams & Wilkins, Baltimore, 1993) aimed at helping physicians promote healthy behavior among adolescents seen in ambulatory care settings.

The AMA's Council on Scientific Affairs supports confidential care for adolescents. The council reports in the March 17 *JAMA* that youths are more likely to seek medical treatment if their parents can remain uninformed. The council encourages physicians to discuss their policies about confidentiality with parents and adolescent patients, including the conditions under which confidentiality will be abrogated. Physicians should also consider special financial arrangements for adolescents; insurance claims sent to parents list services provided, compromising confidentiality.

We should develop appropriate and effective early childhood education programs. Elders recommends that comprehensive health education be taught to all children beginning in kindergarten. In addition, parents need education and support in fulfilling their responsibilities.

Elders also points out that male accountability needs to be reinforced. Family planning and sex education have traditionally focused on girls and young women, as though boys and young men are absolved of sexual responsibility. This must change.

Finally, Elders argues that school-based clinics may increase access to primary preventive health care, making it nearly universally accessible. We should support such clinics.

The task of improving adolescent health is formidable, and the job will not be made easier by laws, rules, and regulations. Health education, the parent as a positive role model, and peer influence are the weapons that can win this campaign. MM

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The Board of Medical Practice

Can It Protect the Public and Meet Physician Needs?

Minnesota Medicine interviews H. Leonard Boche

The Board of Medical Practice—just the name makes some physicians cringe. The BMP assumes a somewhat adversarial role in physicians' eyes, but as a regulatory agency created to protect the public, it naturally cannot be overly amicable. Nonetheless, the relationship between the BMP and physicians should not be entirely adversarial, says H. Leonard Boche, BMP executive director, so it attempts to find a middle ground. "We've found that if we are receiving criticism from the practicing community and the public, then we are probably in about the right place," he says in the following interview, in which he discusses the board's activities.

The Minnesota Medical Association does its share to reduce the antagonistic nature of physicians' relationships with the BMP. The MMA's Committee on Ethics and Medical-Legal Affairs maintains constant dialogue with the BMP and discusses changes the MMA feels would improve the BMP's disciplinary process. For example, the MMA would like the board to notify physicians of all complaints lodged against them, to make its waiver authorization form for the release of personal medical records less broad in scope so that it could not be used outside the investigation at hand, and to refrain from requesting original patient records since providers are required under law to redact identifying patient information from medical records before turning them over to a third party.

Among its many duties, the BMP handles complaints against physicians impaired by chemical dependency. According to Boche, the BMP is interested in the physician's recovery and avoids disciplinary action whenever possible. Boche himself has a background in the treatment of chemical dependency; before joining the BMP five years ago, he was association manager of the Minnesota Association of Treatment Programs and managing director of the Chemical Dependency Clearinghouse of Minnesota. He has a master's degree in social organization from the University of Minnesota and attended the Yale School of Alcohol Studies.

H. Leonard Boche

"In some cases, we have to use disciplinary action, but we prefer to avoid it."

Minnesota Medicine: Please tell us a little about your background and the circumstances that led to your selection as executive director of the Board of Medical Practice.

Boche: I've spent most of my career as an administrator in the health field and specifically in chemical dependency, where I have been a program administrator, association manager, and lobbyist. When I was hired in 1988, I was told that the board was looking for someone who had worked with the Legislature and had the ability to interpret the work of the Board of Medical Practice to the general public and to the licensees.

Minnesota Medicine: So you see your role as an intermediary between the public and the profession?

Boche: That's correct. In my work, I try to help people understand the board's process. Our staff collects information on providers in an orderly fashion, being well aware of due process constraints. The material is then presented to the board for a decision.

Minnesota Medicine: Who makes up the Board of Medical Practice and how are the members appointed?

Boche: The board has 16 members. Ten are M.D.s, one is a D.O., and the other five are public members. They are all appointed by the governor for four-year terms and are eligible to be reappointed once. To assure an equitable distribution of members across the state, we must have at least one M.D. member from each of the eight congressional districts and no more than one public member from any one congressional district.

Minnesota Medicine: What is the BMP's charge?

Boche: The Board of Medical Practice was created in the early 1880s, and its mandate has been to protect the public. It first did this by determining who was eligible and competent to practice medicine. At one time, the state conducted its own examinations of persons who wanted to practice medicine in the state. Later, national standardized examinations were developed; the state requires individuals to pass these exams before they are granted the privilege of practicing medicine in Minnesota. More recently, the board has become increasingly involved in the disciplinary side of the public protection formula.

Complaint Handling

Minnesota Medicine: Tell me about the complaints the board receives. How many and what types do you receive each year, and what actions does the board take?

Boche: The board is complaint driven. We do not go out and do inspections or engender complaints. Essentially, we respond to complaints that come to us. Before changes were made to the Medical Practice Act in 1985, the board received fewer than 200 complaints a year, 95 percent of which came from patients or patients' families. This has changed a great deal since passage of the 1985 amendment. We now receive more than 1,200 complaints a year, about 40 percent from the public, 40 percent from other kinds of enforcement or inspection agencies, and the remaining 20 percent from licensees themselves. The increase in number of complaints is probably due to heightened public awareness of the board and more stringent reporting requirements that were part of the amendment.

> "For the public's protection and for the convenience of the licensee, we are trying to streamline our complaint processing system."

Minnesota Medicine: How many complaints do you refer to the attorney general?

Boche: We are required to refer to the attorney general's office directly for investigation all allegations of sexual abuse or inappropriate sexual contact or sexual behavior on the part of licensees. We also refer to the attorney general's office any cases requiring a field investigation—usually about 30 percent of the complaints we receive each year. The attorney general's office does the field investigations for all the health licensing boards.

Minnesota Medicine: Tell us about your new triage system for processing complaints.

Boche: In 1992, the methodology we used for managing complaints was the same as in 1985, but we had a fivefold increase in the number of complaints, resulting in a serious backlog of cases. So, we began using a triage method for managing complaints. Under this new process, a complaint review committee evaluates the complaints to determine which ones warrant further investigation. Those that don't may instead be disposed of through an educational response or may be closed subject to the receipt of additional information, or they may result in dismissal. For the public's protection and for the convenience of the licensee, we are trying to streamline the whole process.

Minnesota Medicine: Are physicians notified of complaints made against them?

Boche: Most are, but not all. We can dispose of some complaints without involving the licensee. In most cases, the licensee will find out by letter that he or she is under investigation when the board or the attorney general's office requests a written response to a complaint the board has received.

Minnesota Medicine: What type of fines are levied against physicians, and where does the money go?

Boche: Technically, the board does not levy fines. We establish civil penalties for one of two reasons. One is to deprive the licensee of profit that he or she may have inappropriately secured, which rarely happens. The second is to recapture the cost of an investigation. The money we receive goes into a special revenue fund and ultimately reduces the rates physicians pay for licensure renewal.

Minnesota Medicine: How often do malprescribing cases come before the board?

Boche: The number of malprescribing allegations has been declining each year since 1990—the peak year. I believe in 1992 we issued only nine orders for inappropriate prescribing. I must commend the medical community for taking corrective action; the profession identified malprescribing as a problem and dealt with it.

Diversion Program for Impaired Physicians

Minnesota Medicine: What can you tell us about the board's pilot diversion program for impaired physicians?

Boche: We are implementing some new ways of dealing with professionals impaired by chemical dependency, mental illness, or other disabling illnesses. The program is for physicians who are under review by the board for the first time and who have voluntarily reported their condition to us. Under the new method, which we refer to as "continuance," we suggest a treatment program, we monitor body fluids for a period of time if the problem is chemical dependency, and we encourage physicians to follow an after-care plan to reinforce their treatment.

Minnesota Medicine: Has the diversion program proved successful?

Boche: It's really too early to tell. Historically, discipline has been the only tool available to us; naturally, this has made people reluctant to come forward voluntarily. I want to emphasize that the board is interested primarily in the physician's recovery and the restoration of his or her health and practice. In some cases, we have to use disciplinary action, but we prefer to avoid it.

Minnesota Medicine: How many impaired physicians come to the board's attention each year?

Boche: We issue about 40 to 50 orders a year related to impaired physicians.

Residency Permit Legislation

Minnesota Medicine: The Legislature is in the process of passing residency permit legislation. What is this all about?

Boche: This legislation requires unlicensed residents to secure from the Board of Medical Practice a residency permit. The purpose of the legislation is to bring all residents under the board's jurisdiction. Residency program faculty and persons holding residency permits will be subject to the reporting obligations of the Medical Practice Act and will be required to report personal knowledge of any conduct they reasonably believe constitutes grounds for disciplinary action.

Minnesota Medicine: Is the residency permit legislation going to interfere with academic corrective actions of residency training programs?

Boche: It certainly is not intended to. The board intends to look to the institution as the primary correcting agency. Our goal is to get better information from the residency programs so we can make better decisions about licensing.

The National Practitioner Data Bank

Minnesota Medicine: How does the BMP view the National Practitioner Data Bank?

Boche: The National Practitioner Data Bank tends to be redundant with other data collection efforts. The Federation of State Medical Boards has had a databank that goes back some 30 years. The federation's databank is much more useful to us because it provides a longitudinal history and better information.

Minnesota Medicine: Does the NPDB create disincentives for providers to engage in unethical or inappropriate behavior, as intended? And does it meet its goal of making hiring institutions aware of problem physicians?

Boche: I doubt that the existence of the NPDB provides a deterrent to inappropriate or unethical behavior. The NPDB does alter the behavior of supervising institutions, in that they tend to take corrective actions that do not require reports to the NPDB. The value of the NPDB is in preventing licensees who are disciplined in one jurisdiction from fleeing to another state or hospital to practice.

The BMP: Neither Friend Nor Foe

Minnesota Medicine: As I'm sure you're aware, some physicians view the board as an adversary. Does this make your job more difficult?

Boche: To be an effective regulatory body, you can't be too friendly with the people you're regulating. Conversely, of course, the relationship can't be entirely adversarial, either. We try to find a constructive middle ground. We've found that if we are receiving criticism from the practicing community and the public, then we are probably in about the right place.

Minnesota Medicine: Do you have any concluding thoughts you would like to share with *Minnesota Medicine* readers?

Boche: The Board of Medical Practice attempts to ensure that medicine is being practiced safely. At the same time, we know that we need to give physicians a secure setting in which to practice. We see both of these objectives as part of our responsibility, which we try to execute as quickly and thoughtfully as possible to meet the needs of the public and the licensees while conforming to the due process constitutional protections. **MM**

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Are You Ready for an Encounter with the Board of Medical Practice?

Michael J. Murray, M.D., Ph.D.

You have been charged with a crime. You do not have the right to face your accuser. You do not have the right to know all the facts of the case against you. You must cooperate. In some circumstances, you have limited access to legal representation. You stand to lose your livelihood, your reputation, and large sums of money. Is this some seedy banana republic or a scene from "Midnight Express"? Far from it; you're being investigated by the Minnesota Board of Medical Practice.

Besides paying the $400 surcharge for our medical licenses, many of us are fortunate enough to have only minimal contact with the Board of Medical Practice throughout our entire careers. But if you do have a close encounter with the BMP, being well informed about the board and its procedures can help prevent the nightmare described above. Two articles in this issue of *Minnesota Medicine* provide information about the board and its methods. The first, an interview with H. Leonard Boche, executive director of the BMP, describes the board's activities, disciplinary process, and its efforts to handle cases promptly and to treat physicians fairly (page 7). The other, this month's Medicine Law & Policy article, by Jan Halverson and Laura Benson, describes the board's statutory power to intervene when it perceives that a physician is chemically dependent (page 27).

The Board of Medical Practice was established not only to license, but to investigate and discipline, physicians. Many physicians express concern regarding the investigative and disciplinary actions of the board; many complain that they perceive a lack of due process.

Oftentimes complaints are processed without physician knowledge until an investigation is conducted by the attorney general. Physicians do not always receive prior notice of the investigation and their right to have legal counsel present. The BMP defends this lack of notice as a necessity in cases where prior notice could compromise the investigative phase of review. In addition, the board may temporarily suspend a physician's license without a hearing if the physician's continued practice would create a serious risk of harm to the public. A physician under investigation does not have access to any of the investigative information collected by the board, which makes the physician's defense a very difficult task.

> "The BMP was established by the Legislature not to protect physicians, but to safeguard the public."

We must be aware of the board's broad power concerning complaints on investigation. While the majority of these complaints do not lead to any actions, 30 percent to 40 percent of them do lead to investigations and create considerable anxiety for the physicians being investigated. The board most often investigates physicians for unethical behavior, fraud, malprescribing, or sexual misconduct. As described by Halverson and Benson, physicians may be forced to undergo physical or mental examinations or have their personal medical records reviewed without consent. Valid reasons for the examinations exist, but for the physician under investigation, these are particularly upsetting and threatening acts.

The physician being investigated by the board is not the only member of the medical community under scrutiny; all physicians are responsible for reporting to the board any conduct of a colleague that the reporting physician reasonably believes constitutes grounds for disciplinary action under the Medical Practice Act. And, as Halverson and Benson point out, at least four Minnesota physicians have been investigated and disciplined for failing to inform the board of such conduct by colleagues.

Some physicians find the actions of the Board of Medical Practice adversarial. This is not surprising, given that the board was established by the Legislature not to protect physicians, but to safeguard the public. Many of the board's actions that practicing physicians find onerous have been mandated by statute, and many of these provisions cannot be changed without amending the Medical Practice Act. Although changing the act would undoubtedly prove difficult, it's not out of the question. Such legislative changes could include the following:

1. A requirement that physicians be notified of all complaints lodged against them. This information would serve as a valuable quality assurance mechanism and would warn physicians of potential areas of concern;

2. A requirement that the board provide 30 days' prior written notice of an investigation and a physician's right to have legal counsel present unless exigent circumstances prevent such notice; and

3. A requirement that the investigative report be reclassified as private so that the physician and the physician's legal counsel have access to information in the report that would assist in preparation of the defense.

Other states have made inroads into the process by which their medical boards investigate and discipline physicians. The Texas Medical Association, for example, has succeeded in both educating physicians and lobbying the state Legislature. (When Texas physicians become licensed, they are required to pass an examination on the Texas Medical Practice Act. Currently in Minnesota, we can only recommend that every practicing physician become familiar with the Medical Practice Act, especially Minn. Stat. § 147.091, Grounds for Disciplinary Action.)

> "Physicians must know which activities are regulated and what statutory powers the board has."

Given the broad powers the Medical Practice Act allows the board, it is incumbent upon any physician who is investigated to seek legal counsel. The Minnesota Medical Association maintains a list of attorneys who are available to help. Furthermore, the Minnesota Medical Association's Committee on Ethics and Medical-Legal Affairs monitors the activities of the BMP and meets with some of its members periodically to share concerns. The Minnesota Physicians Foundation is developing a support group for physicians who are being investigated or who have been disciplined by the board. Unfortunately, because all proceedings are confidential, there is no way for the MMA to solicit from the board the names of physicians who might benefit from such a group. If you are interested in participating in this group, please call Roger Johnson, director of MMA member relations, 612/378-1875.

Minnesota physicians must be knowledgeable about the Board of Medical Practice and its procedures if we are to demand fair treatment. Physicians must know which activities are regulated and what statutory powers the board has. As an informed group, we can lobby for changes to the Medical Practice Act that would guarantee physicians the same due process provided the general public. MM

Michael Murray is an anesthesiologist at the Mayo Clinic in Rochester, Minnesota, and chair of the MMA Committee on Ethics and Medical-Legal Affairs.

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COVER STORY

Physicians Prod Patients to SHAPE UP! *Give Up Bad Habits*

By Miriam K. Feldman

ILLUSTRATIONS BY KATE MUELLER

Thomas Kottke, M.D., likes to tell the story about the woman who sued her doctor because he hadn't advised her to stop smoking. It's the kind of story that makes your average doctor bristle. And Kottke, a cardiologist at Mayo Clinic and past president of the Minnesota Coalition for a Smoke-Free Society, knows why. "She picks up a cigarette pack every day that says smoking kills you. She ignores that and turns around and wants to sue her doctor because he didn't tell her to quit smoking." What nerve!

On the other hand, Kottke says the situation is anything but clear-cut. As a society, we have done little to discourage tobacco companies from shamelessly pitching ads to young people, or neighborhood drug stores from selling the noxious weed. So Kottke thinks doctors *should* advise patients to stop smoking. But a number of his colleagues argue that there aren't enough hours in the day for hand-holding each and every patient. "Marcus Welby," they tell him, "only had to treat one patient a week."

Kottke, a past member of the U.S. Preventive Services Task Force, knows that patients tend to listen to their doctors, but he also understands what his colleagues mean. Doctors are working in a system that emphasizes cure rather than prevention, that reimburses for procedures but not advice, and that values specialists to the point that they now outnumber generalists by about 2-to-1. "We cannot," he says, "afford to have a doctor riding shotgun, ripping the cigarette out of your mouth every time you put one in, or ripping out the fried cheese ball."

So what's a doctor to do? How much can doctors "Marcus Welby" their patients? More than they've been doing, say an increasing number of groups pushing for health care reform. But if doctors are being asked to do more hand-holding by promoting wellness and prevention, the public is being asked to do more, too. Everyone from the AMA to the Minnesota Health Care Commission is sending the public a clear message: Shape up! Personal habits result in billions of dollars in health care costs every year, so the individual has a role to play in resolving the cost-containment quagmire, these groups are saying.

Nobody could be happier with this turn of events than Byron Crouse, M.D., president of the Minnesota Academy of Family Physicians and assistant program director of the Duluth Family Practice Residency program. "It's interesting now that people are saying we need to do more of this. Family medicine has been doing this for a long time," he says.

George Isham, M.D., calls this renewed interest in wellness and prevention a return to more traditional medicine. "It's coming back home to what many physicians believe is an important aspect of the health care system—preventing illness," says Isham, who is medical director of HealthPartners (the new health plan formed by the merger of Group Health and MedCenters).

Alexander Leaf, M.D., believes preventive care is so important that it is the key to saving our ailing health care system. The public needs to be "disabused of the fantasy" that medicine will make better the adverse effects of a lifetime of self-abuse, wrote the former chief of medicine and chair of the Department of Medicine at Harvard, in the February 3 *Journal of American Medical Association*. Physicians "will need to learn how to counsel patients and the public on preventing disease."

In a telephone interview, Leaf, who is now professor emeritus, said he believes the public is ready to hear his message: "I thought now was the time when people were more relaxed about doing things in the health care system in a more creative way."

> "We cannot successfully resolve our current health care crisis unless we are willing to alter damaging patterns of behavior."
>
> –Daniel Johnson, Jr., M.D.

If Minnesota is any indication, Leaf is right. Just a week before his article appeared, the Minnesota Health Care Commission presented a strategy for saving $6.9 billion in health care costs over the next five years that includes reducing a number of risky behaviors. Smoking, drinking, driving without a seat belt, and riding motorcycles and bikes without a helmet were targeted as personal behaviors that needlessly drive up health care costs. (Preventable illness is responsible for an astonishing 70 percent of Minnesota's health care costs, according to the commission.)

One month later, the AMA joined the chorus when it released a study saying lifestyle factors and social problems contribute more than $171 billion to overall health care costs. Tobacco use alone causes a half million premature deaths a year and adds $22 billion to our national health care bill, the AMA reported. "We cannot successfully resolve our current health care crisis unless we are willing to alter damaging patterns of behavior," said Daniel Johnson, Jr., M.D., speaker of the AMA's House of Delegates, when the study was released.

This flurry of interest in individual responsibility and prevention is welcome news to a number of doctors, including Leif Solberg, M.D., a Group Health family physician and clinical director of research for the Group Health Foundation. Solberg is co-author of a study (with Kottke and Milo Brekke, Ph.D., of Minneapolis) that discusses why preventive services get shortchanged in many doctors' offices. Doctors tend to respond to acute problems and run out of time, according to the authors. What's more, doctors prefer complex procedures to "check-list tasks," and they don't get feedback from prescribing preventive services. "A myocardial infarction that doesn't happen doesn't provide feedback," they wrote.

"Physicians haven't seen as their responsibility either to go out of their way to provide preventive services or encourage patients to be more active in their own behaviors in obtaining services," says Solberg. Physicians can

Backsliding Into Unhealthy Behaviors

Patients Want Doctors to Keep Them on Track

Public policymakers who expect Americans to shape up have their work cut out for them. A recent Louis Harris survey found that for the third straight year Americans failed to improve their health habits. What's more, in a number of important areas, they are backsliding. These findings are reported in the 1992 Baxter Survey of American Health Habits, conducted by Louis Harris and Associates and sponsored by Baxter International, a manufacturer and marketer of health care products, systems, and services.

Although the survey reveals a disturbing picture of Americans becoming careless about preventive health care, it did offer some good news: significant improvements were made in behaviors required by law, such as the use of seat belts and smoke detectors. This finding has important implications for Minnesota, where the Minnesota Health Care Commission has asked lawmakers to enact legislation regarding smoking, drinking, and wearing seat belts and helmets.

In many areas, however, the public is losing ground.

"When it comes to voluntary health habits, the nation is at best holding the line, and at worst slipping from gains made in the early to mid-1980s," Baxter reported in March, when it released the findings. (It should be noted that, overall, Americans are still doing better than they were 10 years ago, when Harris first started tracking health habits.)

Among the most worrisome findings in the survey of health behaviors was that Americans are exercising less, gaining weight, indulging more in foods high in cholesterol and fat, and are more stressed than ever.

According to the survey, 66 percent of Americans are overweight, up from 63 percent in 1991, and 58 percent in 1983. Only 33 percent of Americans get strenuous exercise three or more times a week, down four percentage points from 1991.

"The survey is a worrisome sign that we're becoming careless about preventive health care," says Vernon R. Loucks, chair and CEO of Baxter International. "If we individually don't take steps to protect ourselves, we sacrifice what is probably our single best opportunity to contain health care costs."

On the positive side, Americans say they are drinking less alcohol and using seat belts more frequently. Nonsmokers now make up 78 percent of the public—an all-time high that is attributed in part to more restrictive laws on smoking in public places and offices. (The Centers for Disease Control and Prevention released a report April 1 that contradicts the Baxter findings. The CDC reported a slight rise in the number of smokers for the first time in 25 years, up two-tenths of a percent in 1991, to 25.7 percent.)

The Harris survey suggests that while we may be a nation of backsliders, we are also repentant: Americans say they want to change their health habits. Seven of 10 smokers want to quit. Four of 10 respondents want to learn more about nutrition, and an equal number want to lose weight.

Doctors, take note. Those who want to change their habits are most likely to want their health messages from their physician. Respondents overwhelmingly chose doctors as the preferred source of advice on smoking cessation, weight loss, nutritional habits, and exercise—over the local hospital, government studies, the media, and employers.

"These survey results represent disturbing trends in the nation's health behaviors," said James S. Todd, M.D., executive director of the American Medical Association, when the report was released. "Fortunately, there are a number of people who want to change their health habits for the better, and they are turning to credible sources of information, including their doctors and local hospitals."

–Miriam Feldman

Shape Up!
Rx Dr. Mom

and should provide preventive services, he adds, but to do so, they will have to establish office systems to track patients' health behaviors.

Isham suggests that physicians can make the most effective use of time by relying on health educators, nurses, and nurse practitioners to teach wellness. "But *physicians* have to say it's important, say the reason why, and encourage the patient to spend time with the health educator and nurses," Isham says. "It does take time."

And there's the rub. The health care system typically isn't set up to reimburse doctors for simply giving advice. "The design [of the health care system] has funded acute care and chronic care of disease and has not funded prevention," says A. Stuart Hanson, M.D., president of the Minnesota Medical Association and a pulmonary specialist at Park Nicollet Medical Center. "We're not reimbursed to get somebody to stop smoking by counseling, and that is the most valuable of any behavior change. We're measured by the numbers of people we've seen, the dollars we bring in, or the drama of the surgery or intervention. We have not created incentives for getting the best outcome, that is, health," he says.

In his *JAMA* article, Leaf made a similar point when he wrote: "Reduction of morbidity, rather than only extension of life, seems to me to be the logical measure of success of a health care system."

The health care system envisioned by Leaf and others will require more primary care physicians. As Kottke puts it: "If we're serious about this whole thing about advising patients, we have to make an investment in primary care. We haven't done that."

The American Academy of Family Physicians (AAFP) would agree. Last spring it issued its "Rx for Health," which cited the "severe shortage of well-trained generalist physicians" as an underlying cause of problems in our health care system. The AAFP proposed achieving a physician specialty mix of at least 50 percent generalists, at least half of whom are family physicians. (Now, less than 13 percent of practicing physicians are general and family physicians, according to the AAFP.) "The national health care debate has not previously addressed this issue," said AAFP President Morris B. Mellion, M.D., when the report was released. "America's leaders must understand and correct public and private policies aggravating this specialty maldistribution."

Despite a growing awareness of this skewed specialty mix, HealthPartners' Isham isn't optimistic that the numbers will reverse themselves much. He uses the word "crisis" to describe the declining number of primary care physicians being trained, and says there is a "demoralization among primary care physicians about their role." The bottom line, he suggests, may be money. "I quite frankly think what holds physicians from going into primary care are economic factors."

Crouse is one of many in agreement. Traditional fee-for-service mechanisms don't provide any incentive for physicians to spend a lot of time in wellness advocacy, he says. The advent of prepaid plans changed that somewhat. "The healthier you can keep them, the better your profit," he says, "I hate talking profit, but the reality is, that drives our system."

If the Minnesota Health Care Commission has its way, physicians may have greater incentives to help patients focus on what is preventable and self-treatable. "The Legislature isn't going to say that physicians have to be paid differently," says Jan Malcolm, vice president of government relations and public programs for HealthPartners and an alternate to the commission. But the health networks created by the commission may

Coaching Patients to Good Health

Many voices are calling on physicians to help patients change unhealthy behaviors. One particularly influential voice is that of the U.S. Preventive Services Task Force, a 20-member panel commissioned in 1984 by the Department of Health and Human Services. In 1989 it released a report concluding that patient education is more effective than most screening in preventing morbidity and mortality in this country.

Unfortunately, most physicians just don't know how to help patients change.

Fortunately, physicians and social scientists have been applying insights from the burgeoning field of behavioral psychology to develop effective techniques for educating patients about lifestyle change. These techniques are relatively easy to learn and apply, and they can be offered to patients as interventions taking only a few minutes per visit. Generally, the techniques can be boiled down to four simple steps. Ideally, these steps should be implemented with the help and support of your entire staff.

Identify the Problem(s)

Before you can do anything about health habits, you have to know what they are. The U.S. Preventive Services Task Force's "Guide to Clinical Preventive Services" (Williams & Wilkins, Baltimore, 1989), for example, recommends that all patients aged 13 to 65 be asked about dietary intake; physical activity; tobacco, alcohol, and drug use; and sexual practices.

While finding out what your patients are up to, you can also collect other information that will be useful later. For instance, is the patient interested in changing any of these behaviors? (If time is limited, you can get a lot of information by having the patient fill out a form.)

Of course, once a problem behavior has been identified, you have to make sure you raise it with the patient. The Preventive Services Task Force suggests using computerized records or other systems to track patients' health behaviors. Many sources suggest putting brightly colored stickers—e.g., ones that say "SMOKER"—on patients' charts.

Motivate the Patient to Change

Your patients are more likely to take health advice from you than from family or friends. Thus, it's important that you—not a member of your staff—tell the patient that a behavior poses a threat to health, adding words such as, "As your physician, I advise you to change."

That alone will sometimes be effective. But to increase effectiveness, "personalize" the message, suggests the National Cancer Institute. The NCI manual, "How to Help Your Patients Stop Smoking," for example, contains a list of "good reasons to stop smoking" that are specific to different types of patients; they range from (for teenagers) bad breath to (for new smokers) "it's easier to stop now."

Most patients have "secret reservations" or "belief barriers" about their ability to change. If you can identify and counter these reservations, you can often motivate a patient who had been resistant. One of the more common barriers to change is a history of failed attempts. Someone who's tried and failed to change in the past may now believe that change is impossible. But if you can elicit this view, you can counter by "reframing" past failures:

- Point out that, this time, you're available to help: "We'll work together."
- Ask what the patient might have learned from experience that would make future attempts more successful.
- Point out that the patient has been successful in changing other behaviors: "You lost weight in the past; how can that skill work for you in your current problem?"
- Look for the kernel of success that may be hidden in the "failure": "How did you quit smoking for a *whole week*?"

Help the Patient Develop a Plan

The key to developing a successful behavior-change plan is to take one small step at a time. Thus, except in unusual circumstances, the patient should work on only *one* problem at a time. Even that goal will usually have to be broken down into still smaller goals; particularly in the beginning, goals should be easy to achieve. The goals should also be specific, not vague intentions.

You can also recommend specific strategies that have been demonstrated effective in behavior modification research. For example, simply becoming more aware of a behavior may help to lessen it. Often a good first step is for the patient to keep a diary of the behavior—listing, for example, how many cigarettes were smoked per day, as well as when and under what circumstances.

Once a goal is negotiated, it should be recorded in the medical record. Experts suggest that doctor and patient also sign a written contract spelling out the goal. You may want to write the contract on a prescription pad.

Finally, the task force notes that you should "close your visit by summarizing your mutual expectations and expressing your confidence that the patient will make a good effort to modify his or her risk factors."

Provide Follow-Up

Having set a goal with the patient, monitor the patient's progress. The task force suggests scheduling a follow-up appointment or telephone call within the next few weeks and subsequent follow-ups at increasingly longer intervals. The follow-up visit is an opportunity to modify goals, add new goals, or address newly discovered barriers to change. Greet the patient's smallest successes with enthusiasm; praise is a powerful motivator and goes a long way toward instilling that "I can do it" attitude.

By the same token, it's important to teach patients to see their own achievements in a positive, rather than self-critical, light. If the patient has a lapse, your response can be crucial. Studies show that people who exaggerate their failure are more likely to relapse. And if the patient does fall, not slip, off the wagon, it's all the more important to maintain a positive outlook. Techniques used to reframe earlier failure can be reapplied here.

Above all, don't give up. Research shows that people who are trying to change a behavior go through many stages. They start by not thinking about change at all; they think about it for a while, and then they may decide to take action. They often have several relapses before they change for good.

"Behavior changes gradually," notes Nancy Rigotti, M.D., an assistant professor of medicine at Harvard Medical School in Boston. "Relapse is a natural part of the phenomenon."

Thus an encounter may be judged successful if the patient makes even a little progress toward change. Says Rigotti, "A success could be to get someone to think about stopping smoking."

"The measure of success," says Jeffrey McKenna, chief of the health promotion section at the NCI, "has to be different for prevention than for treatment."

Helping patients to make behavioral changes may at first seem daunting, but proponents contend that physicians who try these techniques quickly convert to this style of practice.

Says Rigotti: "Our business [as physicians] is to try to reduce death and suffering, and it's quite clear that, in order to do that, we need to try to prevent chronic diseases. A big part of preventing these diseases is encouraging patients to change health habits. Whether we were trained to do it or not, it's part of our mission as physicians."

–Flora Johnson Skelly

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> "If we're serious about advising patients, we have to make an investment in primary care."
>
> –THOMAS KOTTKE, M.D.

end up encouraging prevention as a way to keep down total costs. [The network] is not going to be paid for every service it performs," she says. However, the networks will be encouraged to use their resources creatively, and the result could be that physicians spend more time counseling and educating patients about avoiding unhealthy behaviors.

At the same time, the commission's plan to tax tobacco and alcohol and mandate use of seat belts and helmets may make it harder for the public to engage in certain unhealthy behaviors. However, this plan has some vocal opponents who say it's not unlike a "sin tax" and that it unfairly targets some risks but not others. "Strategies holding individuals responsible for their health are problematic," argued Reinhard Priester and Dorothy E. Vawter in a February *St. Paul Pioneer Press Dispatch* editorial. "The range of behaviors that create or exacerbate health risks is huge," wrote the research associates from the University of Minnesota's Center for Biomedical Ethics.

"Why pick on helmets and not something else?" Priester asked in a telephone interview. "Is it fair to target that and not hang gliding?" He questioned whether any test of fairness was applied when selecting the behaviors targeted by the Health Care Commission, or whether they just happen to be behaviors currently deemed unfashionable by a small but influential group in society. Priester also cautioned against penalizing individuals for their behavior.

Others, like Crouse, however, are adamant about trying to prevent certain risky behaviors and applaud the commission for tackling this issue. "We have to start looking at our most frequently identified problem areas and intervene," says Crouse. "We have to look at what's costing our society the most. We are looking at the societal involvement in health care. It is one way we can let the public know they are an integral part, not just the consumer."

Several commission members say the report has been misconstrued by some as punitive or unfair. "We aren't placing the blame on anyone," says commission member Catherine (Kye) Anderson, chair, president, and CEO of Medical Graphics Corp. in Vadnais Heights. "What we are trying to do is empower the individual to be able to make better choices about their health care," says Anderson, whose 120 employees received rebates on their 1992 medical contributions because of the company's innovative health promotion program.

If patients are to become empowered, physicians may have to help them. "We have a job to teach people how to take care of themselves for their acute illnesses," says the MMA's Hanson. Physicians also have to teach patients to use the system wisely, he says. At the same time, patients will have to trust physicians and not continue to look for more tests.

Solberg agrees that the public must modify its use of the health care system. That means learning not to go to the emergency room for a sore throat, "or insisting you see the world's top specialist for care of every problem," he says.

In "the new world," as Malcolm calls it, the public will have to think twice about how it uses the health care system, and physicians will have to guide them. Physicians will have the incentives to help patients focus on what is preventable and self-treatable, and that is a "very fundamental change," says Malcolm. **MM**

Miriam Feldman is a Minneapolis free-lance writer and a frequent contributor to Minnesota Medicine.

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Medicine for a Sick Immunization System

Teresa Asper Anderson, D.D.S., M.P.H.

ABSTRACT

The United States has recently experienced a rise in the incidence of measles and other preventable infectious diseases. Studies have linked the problem to a growing number of inadequately vaccinated preschoolers. The Minnesota Department of Health estimates that only 61.4% of the state's 2-year-olds have completed the basic primary series on schedule. Coverage rates are worse in the Twin Cities, where the number of poor and minority "at-risk" children has skyrocketed in the last 10 years. Two different assessments in St. Paul revealed that only 24% to 32% of the 2-year-olds in the survey populations had received the basic series of immunizations. Public and private health care providers need to work together to eliminate barriers to immunization.

Minnesotans are proud of their quality of life; in fact, recent headlines proclaim our state to be the healthiest in the nation.[1] Minnesota's emphasis on medical research and advanced technology has brought international fame; however, our failure to adequately immunize Minnesota's preschoolers should temper any smugness. The 1990 measles epidemic highlights our failure to follow the No. 1 rule of public health: prevent the preventable.

The Problem: Increase in Preventable Infectious Disease

In recent years, the United States has experienced an increase in such preventable diseases as measles, pertussis, and hepatitis B.

- Since a national low of 1,497 cases in 1983, measles incidence in the United States has increased, with 27,786 cases and 89 deaths in 1990.[2] That same year, Minnesota reported 462 cases, including three deaths.[3] Of these 462 people, 331 were age-eligible for vaccination, but only 29% had been appropriately immunized.[4]
- In the five years from 1986 to 1990, the United States averaged 3,840 pertussis cases per year.[5] However, a recent study evaluating the under-reporting of pertussis from 1985 to 1988 concluded that only 2.7% to 7.5% of actual cases were reported to the Centers for Disease Control and Prevention.[6] In Minnesota, pertussis incidence has been increasing: 54 cases were reported in 1990, and 141 cases were reported in 1992.[7] Richard Andersen, M.D., an infectious disease specialist at Children's Hospital of St. Paul, reports that the hospital has been treating a new case of whooping cough every eight days since July 1992.
- Haemophilus influenzae b (Hib) caused systemic invasive disease in one of every 200 children under age 5 in the United States until the introduction of the first Hib vaccine in 1985.[8] Although the Hib vaccine has cut the incidence of Hib cases nationally by 71%[9] and locally by 85%[10] since 1983-84, in Minnesota the vaccine is only legally required for children attending a licensed day care.
- The incidence of reported mumps cases decreased dramatically with widespread vaccination after 1977, with a low of 2,982 cases in the United States in 1985.[5] However, major outbreaks have occurred since then, with a high of 12,848 cases in 1987.[11] The disease was often transmitted in workplace settings to young adults who missed both natural and acquired immunity because they were born between 1957 and 1977.[12] Before 1957, almost all children had mumps, leaving them immune to the disease as adults. After 1977, the vaccine was recommended for routine use, and mumps incidence decreased dramatically.
- The CDC reports that the incidence of hepatitis B in the United States increased by 37% from 1979 to 1989 and that an estimated 200,000 to 300,000 new infections are occurring annually.[13] In the St. Paul refugee population, hepatitis B prevalence is high because of its endemicity in much of Southeast Asia. It is estimated that in this refugee population, 51% of the people are immune to HBV and 15% are carriers.[14] Children infected at birth have a 90% chance of becoming chronic carriers and a subsequent 25% chance of dying of liver disease later in life.[13]

The Reason: Inadequately Immunized Preschoolers

Full courses of DTP, MMR, and OPV are required for school entrance in

Minnesota; consequently, surveys of state kindergartners show that 97% to 98% are up-to-date on their required immunizations.[4] Unfortunately, no such mechanism exists to monitor immunization status between birth and school entrance. The Minnesota Department of Health provides estimates (see table) of preschool vaccination rates based on retrospective surveys of 1990-91 and 1991-92 kindergarten enrollees.

While the overall state percentage of children with up-to-date immunizations improved slightly from 1990 to 1991, the proportion of appropriately immunized 2-year-olds in Minneapolis and St. Paul actually decreased to 44.4%. Data from the 1990 census highlights significant related trends in Minnesota's population:

- In the last 10 years, all communities of color have grown in Minnesota: the number of African Americans in the state increased by 81.8% since 1980, the number of American Indians by 40%, Hispanics by 65.8%, and Asian/Pacific Islanders by 267%.[4] Most individuals from these ethnic groups live in the metropolitan area.
- Poverty doubled in the Twin Cities from 1980 to 1990. Poverty is not confined to urban areas; 22 rural Minnesota counties have poverty rates ranging from 16% to 24% of their populations. Nearly half of the families living in poverty are headed by women.[4]

Because being poor and being a member of a racial minority group have been shown to be significant risk factors for not receiving age-appropriate vaccines,[4,15] these demographics have undoubtedly contributed to Minnesota's immunization problem.

Independent Assessments of Vaccine Coverage in St. Paul

The author conducted a chart audit at the St. Paul Public Health Immunization Clinic, which provides vaccines for much of St. Paul's at-risk population. The primary objective was to determine how many 24- to 35-month-old clients were up-to-date in the primary immunization series (four DTP, three polio, and one MMR) by their second birthdays. The study used a chart audit method based on CDC guidelines[16] and was completed in June 1992.

The results more than confirmed the Minnesota Department of Health's low estimates. Of the 162 children sampled, only 39 (24%) had completed the primary series before their second birthdays. The number of children receiving an antigen fell off precipitously with each required dose; for example, of the 162 clients who received an initial dose of DTP, only 55 (34%) had received the fourth dose from St. Paul Public Health by their second birthdays.

A chart audit survey may not be the most accurate method of determining vaccination levels because patients frequently change providers, making it difficult to define an active client at any one clinic. However, another recent survey lends validity to this alarmingly low percentage. Ramsey Family Physicians, a component of St. Paul-Ramsey Medical Center, assessed the vaccination records of 1991-92 kindergarten students in seven schools on the lower east side of St. Paul and found that only 31.6% of the students had completed the basic primary series by 24 months of age. At one school, just 24% of the students had completed the series.[17]

Delayed immunization is not just a problem of inner-city public health centers and their clients. According to state figures, only 66% of the toddlers in suburban Minnesota were adequately immunized in 1991-92.[4]

Table

Estimated proportions of 2-year-olds completing primary immunization series

	'90-91[*]	'91-92[†]
Minnesota	56.4%	61.4%
Greater Minnesota	53.4%	62.6%
Suburban metro	63.6%	66.1%
Mpls./St. Paul	51.2%	44.4%

[*] Minnesota Department of Health. Immunization status of two-year-old children based on a retrospective survey of 1990-1991 kindergarten enrollees by geographic location, Minnesota. Minneapolis: Minnesota Department of Health, 1992 Jan.

[†] Minnesota Department of Health. Immunization status of two-year-old children based on a retrospective survey of 1991-1992 kindergarten enrollees by geographic location, Minnesota. Minneapolis: Minnesota Department of Health, 1992 July.

The Solution

While economic issues obviously play a large role in our health care delivery problems, simply throwing more government money into current programs won't solve the immunization crisis. Because children are eventually immunized before entering school, we can assume the resources needed for immunization were also available at an earlier age. In the St. Paul area alone, eight public health clinics currently provide vaccines free to those unable to pay. Increasing the availability of free vaccines, in and of itself, would merely subsidize the middle-class parent looking for a health care bargain.

Childhood immunization rates are affected by both the supply and demand for immunization services. Consumer demand varies with health care beliefs, socioeconomic status, and language and cultural differences. Public health clinics in Minnesota have attempted to increase consumer demand for vaccine services through the use of culturally sensitive spokespeople, targeted mass media campaigns, employment of bilingual staff, and translation of immunization information.

Some physicians may feel that such specialized services are not within the scope of their practices. However, clinicians can make a huge difference in immunization rates by being "user-friendly" and eliminating barriers to care, especially considering that 83.8% of Minnesota 2-year-olds receive their immunizations in a private clinic.[18] Supplier barriers include vaccine fees, insufficient staff or clinic hours, long waits for appointments, requirement of full physical examination before immunization, poor coordination of services when clients change providers, inadequate referrals, and providers who do not consider immunization a priority or who do not keep current with vaccine indications and contraindications.[4,15,18]

To improve immunization delivery under the current system, providers need to evaluate their offices or clinics and eliminate any existing supplier barriers. This could include developing a written immunization policy, motivating and training staff, tracking and recalling children on schedule, or simply stressing the importance of immunizations. Studies show that such a simple change as allowing non-physician team members to obtain consent for vaccination and give injections can greatly increase immunization rates; at one clinic where nurses were given a standing order to identify and vaccinate patients against influenza, the rate of this vaccination increased from 28% to 81% of potential receivers.[15]

Several studies have found that minor illnesses are often incorrectly identified as a contraindication to vaccination. In a Los Angeles clinic, one-third of 238 children presenting for care were not vaccinated against measles because of a minor illness.[19] Another survey examined 433 charts of urban poor children and found a mean of 7.2 visits per child when immunizations could have been given but were not.[20] Misperceptions about administering multiple vaccines also cause problems; one study found that 20% of such opportunities were missed by immunization clinics.[19]

Both public and private health providers need to aggressively identify all under-immunized children and immunize them appropriately on the spot. Missed opportunities can be reduced through use of prompts, such as reminder questionnaires attached to patient charts. Because poor children often receive their basic health care in a hospital, ambulatory clinic, or emergency room, those providing services in these settings should ask for immunization histories as a routine part of any visit.

Children are now the poorest and most neglected segment of our society, with one out of four children living in poverty.[21] Our nation's children have many problems we cannot personally solve, but we are certainly able to prevent needless deaths from preventable diseases. To do so is our responsibility and our privilege. **MM**

Teresa Asper Anderson has been on the staff of St. Paul Public Health since 1978, originally as a dentist and currently as an epidemiologist. Her 1992 master's project at the School of Public Health, University of Minnesota, provided a plan for estimating preschool immunization rates in the public sector of St. Paul.

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Chemical Dependency Allegations and the Minnesota Board of Medical Practice

Jan D. Halverson, J.D., and Laura Benson

It is 4 p.m. on a Friday afternoon. A process server comes to your office and delivers an Order for a Mental and Physical Examination issued by the Minnesota Board of Medical Practice (BMP) directing you to arrange for an immediate inpatient chemical dependency evaluation at Riverside Medical Center.

Although not frequently utilized, the BMP's authority to order an immediate chemical dependency evaluation is indicative of its overriding interest in protecting the public from impaired physicians.

A physician concerned about his or her chemical use or that of a colleague should be cognizant of the BMP's regulatory mechanisms for responding to chemical dependency allegations. A complaint against a physician normally begins a long, stressful process of investigation and formal conferences, potentially followed by body fluid monitoring, treatment, and possible license restrictions or revocation. Although only 42 of the approximately 1,200 complaints the BMP received in 1992 were based on chemical dependency, nearly all of those complaints resulted in BMP orders.

The Board's Statutory Authority

The Board of Medical Practice is an independent state agency responsible for licensing, regulating, and disciplining physicians. Of the 23 statutory bases for imposing disciplinary sanctions on physicians set forth in the Medical Practice Act, two of the sections specifically prohibit conduct involving chemical dependency. The first proscribes the "inability to practice medicine with reasonable skill and safety to patients by reason of illness, drunkenness, use of drugs, narcotics, chemicals or any other type of material or as a result of any mental or physical condition, including deterioration through the aging process or loss of motor skills."[1] The second prohibits a physician from "becoming addicted or habituated to a drug or intoxicant."[2] The BMP has broad statutory authority for imposing disciplinary sanctions for violation of either provision. The forms of disciplinary action that the board may utilize include censure or reprimand; imposition of civil penalties; and imposition of limitations or conditions on a physician's license, including license suspension or revocation.

> "The BMP treats chemical dependency as an illness and supports the physician through recovery."

The BMP also may, without a hearing, temporarily suspend a physician's license if it finds that the physician's continued practice creates a serious risk of harm to the public. In fact, as described above, the Medical Practice Act authorizes the board to direct a physician to undergo a mental or physical examination.[3] Failure to submit to that examination constitutes an admission to the allegations of improper conduct. Moreover, in ordering a physical or mental examination, the board is authorized by statute to obtain a licensed physician's medical data and health records without his or her consent.

Chemically Dependent Physicians

The BMP's disciplinary action depends on the circumstances of each case. In the first and most common type of chemical dependency case, the physician has received treatment before being reported to the BMP. In such cases, the BMP typically issues an order that supports the physician's recovery. The order consists of an after-care plan, including body fluid monitoring and continued BMP contact with the physician.

The second type of chemical dependency case involves a physician who undergoes treatment, has a period of sobriety, and then relapses. In such cases, the BMP's order normally consists of further evaluation, treatment, and a structured monitoring program. Depending on the physician's history of relapse, the BMP might require the physician to take some time off from medical practice until he or she has demonstrated a sufficient period of sobriety.

The third classification of chemical dependency involves a physician who is practicing while actively chemically dependent. According to H. Leonard Boche, BMP executive director, the board makes fewer than six interventions in this category each year. In these cases, the BMP issues an order for evaluation and devises a treatment plan based on the evaluator's recommendations. The BMP frequently requires that the physician spend some time away from practice. Although the BMP has never permanently revoked a license because of a chemical dependency, it has monitored a few physicians for the rest of their careers.

In each of the above three situations, the BMP assigns a treating physician who provides support and care for the impaired physician during recovery. The BMP order prohibits the impaired physician from using alcohol or mood-altering chemicals unless prescribed by a physician. Random body fluid tests are conducted to assure compliance. Further, chemically dependent physicians frequently are required to attend Physicians Serving Physicians, Alcoholics Anonymous, Narcotics Anonymous, or similar support or self-help groups. The BMP's view is that physicians should be encouraged to use all available resources to aid in their recovery.

Before 1988, the BMP published all disciplinary orders, even those based on chemical dependency. However, the BMP subsequently determined that publication served as a disincentive for impaired physicians to obtain help with their illness. Accordingly, the BMP created an exemption for any order based upon health or illness. Under current practice, physicians' names are not published in newspapers, but the public may obtain information about the BMP's disciplinary action through a review of BMP files.

Mandatory Reporting

The law requires physicians to self-report chemical dependency to the BMP. Physicians must also report personal knowledge of other physicians' conduct if it is reasonably believed that the conduct violates the Medical Practice Act. Referral to Physicians Serving Physicians or another support group does not satisfy the reporting obligation. Similarly, even when a physician claims that he or she has self-reported, other licensed physicians remain obligated to report. Notably, the BMP has disciplined four physicians solely for failure to report other physicians' chemical dependency.

Informal Diversion Program

The BMP bas begun to use an informal diversion program to monitor chemically dependent physicians without a formal order. This route is only available if the physician self-reports, undergoes treatment, and shows no evidence of relapse. Under this program, a physician may undergo treatment before reporting to the BMP. The BMP chemical dependency unit will monitor the physician's body fluids and supervise his or her sobriety. If the physician refuses to participate or has a relapse, the case will go to the BMP for a conference, and the formal process will be initiated.

The BMP also is studying future use of a formal diversion program in cooperation with other health licensing boards. The program may be similar to the process being used with HIV-infected physicians. Under this model, the BMP would not become involved with a physician unless he or she relapsed or was uncooperative. If practice issues arose, the diversion program would refer the case to the BMP for formal processing.

Conclusion

The BMP has taken steps to improve the regulation of chemically dependent physicians. Impaired physicians and their colleagues should understand that the BMP treats chemical dependency as an illness and supports the physician through recovery. Although the process is long, the chemically dependent physician benefits from early BMP intervention. To ignore the disease and the statutory reporting obligations is neither professionally prudent nor legally advisable. MM

Jan D. Halverson is a shareholder with the law firm of Felhaber, Larson, Fenlon & Vogt, P.A., and works in the health law area. He has represented a number of physicians before the Minnesota Board of Medical Practice. Laura Benson is a law clerk with Felhaber, Larson, Fenlon & Vogt and a student at William Mitchell College of Law.

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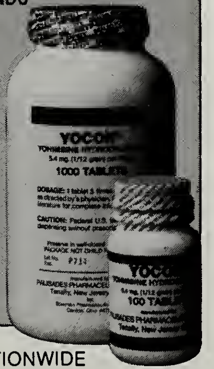

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A Patient Relations Primer

Matt Malloy

When my father closed his family practice five years ago, he reluctantly bowed to the changes he was witnessing in the health care industry. For more than 40 years, he had run a successful practice treating patients who were neighbors, family members, and friends—patients who came to see him because they knew him, trusted him, and for years relied on him to treat a variety of ailments. These were patients who came for regular checkups and told their friends to do the same—patients who sent Christmas cards year after year. But as he closed the doors of that office for the last time, he knew the ideal of the "good family doctor" was changing. Or, as he liked to put it, "Health care today is a whole new ball game."

Indeed, in today's highly competitive health care environment, providers can no longer rely solely on patient loyalty to maintain steady traffic through their offices. Although insurance plays a significant role in the patient's choice of physicians, a number of non-medical factors, ranging from clinic hours to parking availability, also are important. As many physicians can attest, patients have become increasingly demanding in their pursuit of high-quality, service-oriented health care.

The bottom line is that many clinics and groups are finding they must improve and market their services to meet patient demands. That's not to say the "good family doctor" image is dead and gone, but in the midst of growing competition, the physician-patient relationship continues to move toward a supplier-consumer relationship.

Health care marketing includes everything from office design to patient information programs and advertising. For many people, the thought of marketing health care services conjures up images of snake oil salesmen and miracle cures. But as reflected by hospitals' and insurance providers' huge advertising expenditures, the age of marketing has, indeed, arrived.

> "Providers can no longer rely solely on patient loyalty to maintain steady traffic through their offices."

Although private practices and clinics lack the financial resources of major hospitals and insurance providers, a number of basic, cost-effective programs can help attract new patients and retain current patients.

Patient Relations

As everyone knows, there is no substitute for good patient care. No marketing in the world can change or enhance the standard of care a patient receives. However, what many providers are beginning to realize is that the treating physician is not the only one responsible for patient care. From the moment a patient first makes an appointment, he or she forms impressions of the practice and its staff. Consequently, patient relations is a job for the entire staff—from front desk personnel to nurses and accountants. It's a job that requires being attentive to patients' needs and responding to their concerns.

A number of rather simple, cost-effective strategies can do much to project a positive image and respond to patient needs.

Corporate identity

Establishing a strong identity is an important part of attracting new patients and building long-term loyalties. The corporate identity, or logo, appears on all communications associated with the practice and reflects the clinic's image and values. It's the basis for all marketing initiatives, as well as an identifying mark that patients can easily recognize. An effective corporate identity should do the following:

- Create clear, solid, and distinctive associations between the practice, its services, and its philosophy.
- Have broad application for use in all marketing and promotional literature, including signs, patient information brochures, and advertisements.
- Connote top-quality health care service and communicate a strong sense of warmth and caring associated with patient care.

Introduction packets

Because patients' impressions are formed upon arrival, your office can make a strong statement by presenting each new patient with a well-designed, easy-to-read packet of information about the clinic, including clinic services, clinic hours, billing policies, and parking information. This packet should introduce the practice and its physicians and outline the clinic's philosophy as it pertains to the patient. A well-designed piece will be something the patient keeps and will serve multiple purposes: it welcomes the patient and provides a handy resource for future reference; it removes some responsibility from the physicians and staff for introducing patients to clinic services; and it provides a resource staff can use to answer patient inquiries. It is also a valuable protection against malpractice claims based on misunderstandings of clinic policies.

Patient information brochures and flyers

Simple informational flyers or brochures (perhaps included as part of the introduction packet) offer practical advice to patients on services the clinic provides. For example, a podiatrist may have a brochure on what to consider when buying shoes, or an ob/gyn group may offer a handout on diet and pregnancy. These types of brochures provide useful preventive care information, highlight clinic services, and help patients identify questions they may want to ask their physicians. Many pharmaceutical companies and health care agencies produce general interest brochures on a variety of topics for distribution at health care offices. For specific services, physicians may want to consider producing their own brochures, giving them full control over the content and reinforcing the physicians' expertise and commitment to patient care.

Classes and seminars

Depending on a practice's specialty, there may be opportunities to provide free classes or seminars to draw attention to the clinic's services. A family practice might consider a Saturday morning "Kids Hour" to review the basics of nutrition and exercise, or an ob/gyn group might offer an evening seminar on exercise and pregnancy. Keep in mind these shouldn't be marathon events; they should be well-planned, brief sessions designed to introduce patients (and prospective patients) to some basic health care principles related to the clinic's specialty. These events can be promoted among the existing client base with invitations extended to patients' friends and family as well. In addition to building goodwill and name recognition within the community, these sessions offer an opportunity for the practice to support preventive care and demonstrate the physicians' expertise before an audience of new and current patients. In some cases, it might be possible to include a medical screening test that could serve as a basis for follow-up care.

Patient follow-up

Follow-up is an often overlooked and especially critical part of patient relations. Patients' impressions of a clinic or practice continue even after they leave the office. In many cases, the only follow-up contact patients receive is their bill. It is amazing how much goodwill can be achieved with a simple phone call to follow-up with a patient who stopped in for a nagging pain or who recently underwent some type of treatment. Even a call or postcard to remind patients of their next visits (or, in the case of a pediatric group, upcoming immunizations) goes a long way in demonstrating physicians' concern. Nurses, assistants, or office staff can share the task of patient follow-up by scheduling time each day to call a number of patients.

> "Patient relations is a job for the entire staff."

Newsletters

A newsletter that addresses topics pertaining to the practice's specialty offers an opportunity to update patients on new developments, and it reinforces the physicians' reputation as experts in their field of care. The newsletter can also announce events and introduce new employees. With information presented in an easy-to-read, understandable format—complete with an invitation to call or make an appointment—a newsletter can serve as an important link between the patient and physician or clinic.

Advertising

When health care providers think of advertising, they typically envision flashy TV commercials or full-page print ads, but a number of cost-effective advertising options also are available to a practice, including listings in telephone books, community directories, and neighborhood newspapers. To be most effective, however, advertising must be considered within the context of a larger marketing effort. Relying solely on advertising may prove an expensive venture—especially if it's targeted to the wrong audience. The key is to carefully identify a target audience, consider the best vehicle for your message, and prepare a plan that includes a regular schedule of ads (one-shot advertising has little or no effect).

When creating an advertisement, avoid the temptation to tell everything about your practice and instead focus on a couple key points or messages you want to communicate. An eye-catching graphic, a punchy headline, and brief, effective copy are the primary elements that make readers notice and remember your ad.

Commitment Is the Key

A clinic staff's natural response when introducing a marketing program is, "Who's got the time?" Consider this question carefully. Although the beauty of a well-designed marketing program is that it can be adapted to meet any budget and any audience, total commitment from all physicians and staff is of utmost importance before undertaking any marketing initiatives. The entire practice must be committed to devoting the necessary time and resources and to accepting change and disruption while establishing more effective patient communication. Regardless of whether the marketing program is handled entirely in-house or by an outside agency, such as a marketing or communications firm, the commitment must come from within to make the program successful.

The changes my father witnessed as he approached retirement may pale in comparison with the changes the health care industry is yet to experience, but the basic tenant of patient care will not change. What will change is the way physicians communicate their commitment to patient care to current and prospective patients. **MM**

Matt Malloy is vice president of G.R. Barron and Company, a St. Paul-based marketing communications and public relations firm that recently produced a brochure called "Health Care Advertising" on behalf of the MMA. For copies of the brochure, contact Michael Soucheray at the MMA, 612/378-1875.

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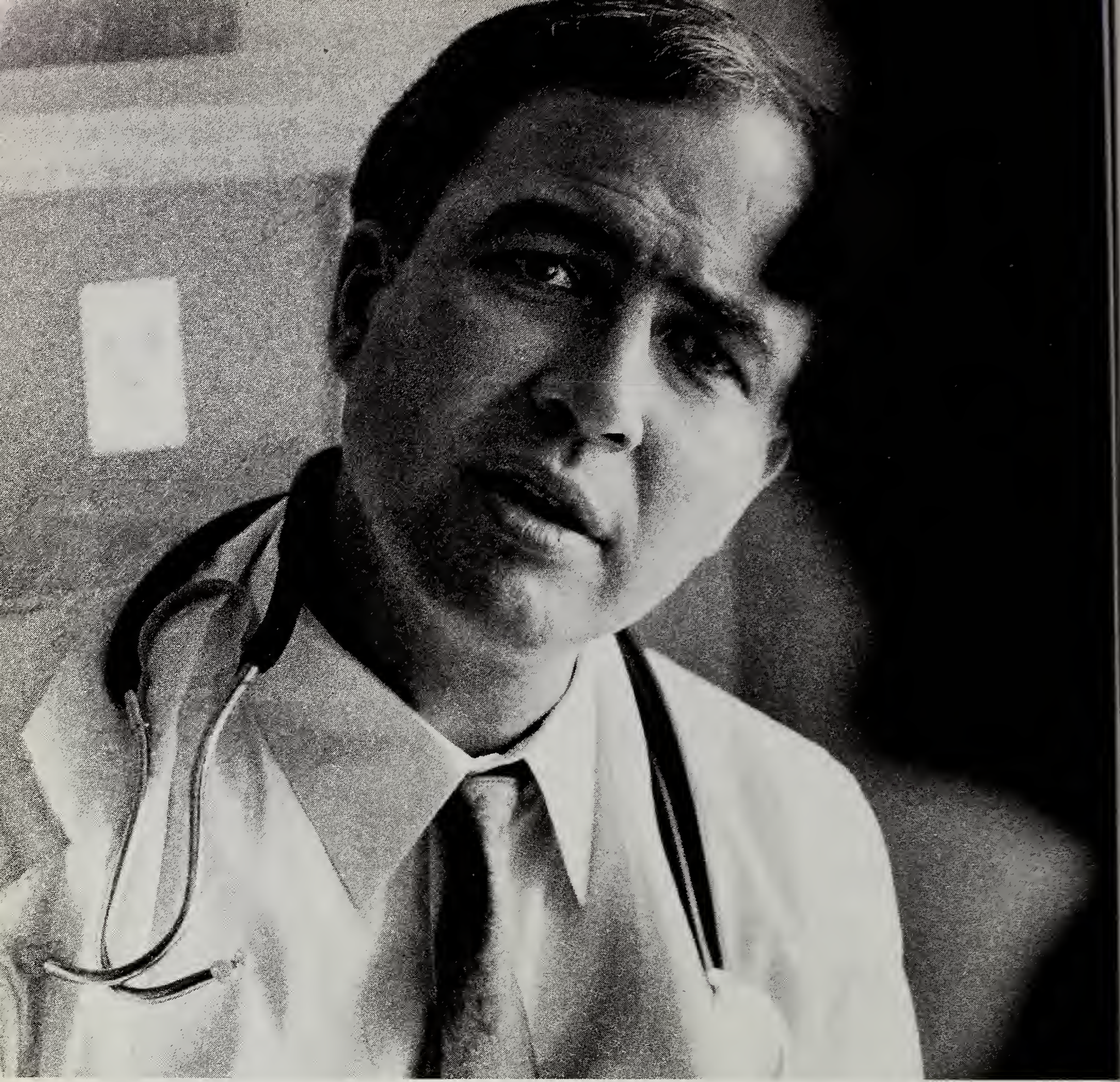

"We must make sure that policies are based on facts, not fears."

Dr. Paul Volberding, Researcher, University of California, San Francisco, Member, American Medical Association

Amid the rancor of politics and budget debates, the needs of the patient are often overlooked. And, it is forgotten that it is physicians who know the most about disease and the suffering of patients.

Nowhere is this more true than with AIDS.

"Throughout the history of epidemics, there has been the possibility of reactions and policy based on fear and stigma," states Dr. Volberding.

The American Medical Association (AMA) agrees. The AMA is committed to fair AIDS policies, and to supporting researchers battling not just AIDS, but the countless diseases that ravage our society.

"What impresses me most about the AMA is its willingness to take public policy positions and its ability to influence opinion," Dr. Volberding adds.

You are invited to join Dr. Volberding and to join with him in his efforts to bring quality health care to those in need. Become a member of the American Medical Association today.

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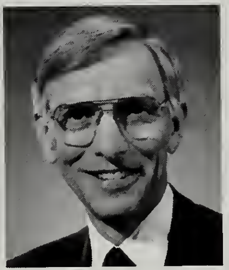

"Health care reform efforts offer us the chance to improve upon what we do for our patients."

Several months ago in this column I wrote about the driving forces affecting health care—about improving the accessibility, affordability, and accountability of the American health care system (November 1992, page 43). Since then, the public debate about the means of achieving these objectives has raged daily as operational and organizational changes have been proposed.

First, centralized control on the part of states, and probably the nation, through regulatory boards continues to be pursued and enacted. The Minnesota Health Care Commission and the commissioner of health, for example, have been given significant control over decision making concerning the state's health care system.

The concept of collaborative networks of health care providers also continues to be encouraged locally and nationally. In Minnesota, a proposal for integrated service networks is moving forward in the Legislature. Nationally, the hospitals' proposal for community care networks and the Jackson Hole Group's proposal for managed competition are promoting a system of integrated, collaborative, and definable networks of physicians, hospitals, other health care providers, and insurance plans.

Meanwhile, the purchasers of care are being urged to join purchasing pools or buyer coalitions to strengthen their leverage for obtaining health care services. Purchasers and regulators are demanding more comparable performance data from providers. Public performance data on the process of care and its efficiencies, plus public data on the outcomes of care, are being quantified and the requirement for measurement embedded in proposals for a new health care delivery system.

Technology's prospects for improving care—often at significant cost—have encouraged more formal analyses of new technology and efforts to more consciously direct its diffusion in the delivery system.

Reducing unnecessary administrative costs is less clear-cut than some of the reform steps I've just outlined, although a single insurance mechanism—rather than multiple, competing mechanisms—seems to offer the greatest potential for cutting such costs.

In addition to these proposals, which are primarily targeted at providers and the health care system itself, almost everyone involved in the reform debate agrees that consumers need incentives to modify their approach to health and the health care system. The state Legislature has proposed initiatives to promote positive health behaviors, such as seat-belt and helmet use, nonsmoking, moderate alcohol use, and appropriate use of health care services—steps that would not only save lives, but millions of dollars as well.

Finally, the government appears resolved to controlling health care spending at least in part by using some sort of a global limit or cap. A new state law requires Minnesota's overall health care spending increases to be reduced each year for the next five years, and global limits are also likely to be part of any national health care reform plan.

Not surprisingly, many of us view these operational and structural changes as threats, but we should also view them as opportunities. Such health care reform efforts offer us the chance to improve upon what we do for our patients. Collaborating and integrating our services will not be disadvantageous. Nor will providing more efficient care, demonstrating what is effective, or making care more affordable to the buyer. We've known for years that society needs to better understand both the benefits and the costs of new technologies as they are implemented, and we all agree that unnecessary administrative costs should be eliminated. Finally, and undeniably, we should all be motivating patients to live healthier lifestyles and to use the health care system more effectively and efficiently (see also "Shape Up! Physicians Prod Patients to Give Up Bad Habits," page 14).

We must make health care affordable; otherwise, good care will never be available to everyone in need. It's easy to agree on principles, but the details of change are tough. The next few years will be challenging, but I believe the prize will be worth it. MM

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People and Places Making Medical News

People

Divine Redeemer Emergency Medicine Director

HealthEast Divine Redeemer Hospital in South St. Paul has appointed Charles J. Lick, M.D., director of emergency medicine. Previously, he was a staff physician with the hospital's emergency department. Lick also serves as medical director of the advanced life support ambulance service based at the hospital.

Wound Center Medical Director

William A. Rupp, M.D., has been named medical director of the HealthEast Wound Care Center located at HealthEast Bethesda Lutheran Hospital and Rehabilitation Center in St. Paul. Rupp, a general surgeon, is associated with St. Paul Surgeons Ltd., of St. Paul, and he has been serving on the HealthEast medical staff.

American Dermatological Association VP

Milton Orkin, M.D., a dermatologist with Skin Consultants, P.A., in Robbinsdale, Minnesota, was elected vice president of the American Dermatological Association at the organization's 113th annual meeting in March.

Baxter Research Grants

Baxter Healthcare Corp. awarded a kidney research grant to Mark E. Rosenberg, M.D., assistant professor of medicine at the University of Minnesota's Renal Division, to study clusterin and renal injury. He was one of 13 recipients chosen out of 131 who submitted proposals. Baxter awards $3 million annually to leading kidney researchers worldwide.

Baxter's Extramural Grant Program, modeled after the National Institutes of Health research program, is currently accepting requests for proposals for its November 5 deadline for renal research grants. For more information, contact Lee W. Henderson, M.D., F.A.C.P., at 708/473-6137.

Medical Alley Awards

Medical Alley, the trade organization for Minnesota's health care industry, presented awards for outstanding achievement at its eighth annual awards banquet March 25. Awards were presented in the following categories:

- Outstanding Contribution in Research & Development, Jay N. Cohn, M.D., professor of medicine and head of the Cardiovascular Division, University of Minnesota Medical School;
- Outstanding Contribution by a Third-Party Payer or Employer, Delwin Ohrt, M.D., vice president and medical director, Blue Cross and Blue Shield of Minnesota;
- Outstanding Achievement in Health Care Manufacturing, Donald Maurer, president and chief executive officer, EMPI, Inc.;
- Outstanding Achievement in Health Care Delivery, Demetre M. Nicoloff, M.D., Ph.D., Cardiac Surgical Associates;
- Outstanding Contribution to the Health Care Industry, David McElroy, Jr., attorney, Oppenheimer Wolff & Donnelly;
- Meritorious Service in Government, Rep. Richard Krueger, DFL-Staples;
- Medical Alley Lifetime Achievement Award, Robert E. Buuck, partner, Medical Innovation Partners;
- Meritorious Service to Medical Alley Award, Gale E. Van Buskirk, president, RegTech, Inc.

HCMC Neuropsychology Director

Hennepin County Medical Center has named David E. Tupper, Ph.D., director of neuropsychology in the department of Neurology. He was previously the director of clinical services at the New Medico Rehabilitation and Skilled Nursing Center in Troy, New York, and maintained a practice in Albany, New York. Tupper also served as a clinical assistant professor in the Department of Psychiatry at Albany Medical College and as an adjunct clinical professor in the Department of Psychology at the State University of New York at Albany.

Physician Assistants, Respiratory Care Advisory Groups

Marlene E. Marschall, Minnesota commissioner of health, named James Berry of Roseville and Arthur Carrizales, M.D., of Vadnais Heights to serve on the Physician Assistant Advisory Council, and John Wheeler of Rochester to serve on the Respiratory Care Practitioner Advisory Council. The two groups advise the Board of Medical Practice on the regulation of physician assistants and respiratory care practitioners.

Berry, appointed to a second term, will represent the general public on the Physician Assistant Advisory Council, and Carrizales will represent licensed physicians. Their terms will run through January 6, 1997.

Wheeler will be completing a term through January 2, 1996, for Bernie Gilles, who was seriously injured in a car accident last fall.

National Ethics Working Group

Steven Miles, M.D., and Arthur Caplan, Ph.D., both professors at the University of Minnesota Center for Biomedical Ethics, have been asked to serve on the ethics working group of Hillary Rodham Clinton's Domestic Health Policy

Group. Miles is an associate professor of medicine at the university and an internist at Hennepin County Medical Center. Caplan is director of the Center for Biomedical Ethics.

Dan McLaughlin, administrator of the Hennepin County Medical Center, has been asked to serve on the White House Task Force on Health Care Reform as a representative of the National Association of Counties. McLaughlin and Ellen Benavides, director of Health Policy for Hennepin County, are dividing the task force responsibilities between them.

The Clinton administration plans to submit a proposal for health reform by May 3.

Places

HCMC, HealthSpan Helping Moldova Hospitals

Hennepin County Medical Center and HealthSpan are developing partnerships with hospitals in Moldova, a former USSR republic now part of the New Independent States (NIS).

Through the program, hospital administrators, physicians, nurses, and technical specialists will volunteer time to help improve health care delivery and quality in NIS hospitals. "Through these partnerships, American hospitals are helping their counterparts in the NIS develop the capacity to function in a market economy and are making an important contribution to stability in these emerging democracies," says Daniel P. Bourque, chair of the American International Health Alliance board of directors, which is currently administering 15 hospital partnerships in nine NIS republics.

Moldovan Minister of Health Gheorghe Ghidirin and two other Moldovan dignitaries first visited HCMC in December to discuss the partnership, and in January, a team from HCMC visited several of the republic's hospitals in Chisinau to assess what contributions might be most helpful. The team from HCMC included Dan McLaughlin, administrator; Michael Belzer, M.D., medical director; and Donald Jacobs, M.D., surgery.

"Plans right now are that we will work with Chisinau's City Ambulance Hospital in the area of trauma and emergency medicine, with Republican Hospital on kidney dialysis, and with the Moldovan Ministry of Health on medical education, finance, and insurance," said McLaughlin. The Minneapolis Heart Institute at Abbott Northwestern may provide assistance in the area of cardiac surgery, he said.

'U' Participating in Women's Health Initiative

The University of Minnesota is one of 16 centers chosen to participate in the Women's Health Initiative, a national research project that will span 15 years and cost $625 million. This National Institutes of Health study will be the largest and most expensive health research project in U.S. history. Researchers will follow more than 160,000 women aged 50 to 79 for nine years, focusing on the causes and prevention of heart disease, cancer, and osteoporosis and developing ways to teach post-menopausal women how to stay healthy.

"For far too long, research on women's health has been neglected," said NIH Director Bernadine Healy, M.D. "Today we are entering a new age in women's health research." The participating schools have been asked to pledge that minorities will take part. About 20 percent of the participants will be women of color.

The University of Minnesota will conduct its research at HealthSpan's Berman Center for Clinical Research near the former Mount Sinai hospital in Minneapolis. The clinic will select 3,500 volunteers for various research projects. Richard Grimm, M.D., a university cardiologist, is principal investigator for the project in Minnesota.

MedCenters Recognized for Quality Assurance

MedCenters Health Plan has been provisionally accredited by the National Committee for Quality Assurance. It is one of only 36 HMOs nationwide with full or provisional accreditation and is the first HMO in Minnesota to be accredited by NCQA, which reviews organizations that deliver managed health care services. The HMO was assessed in six areas: quality assurance, credentialing, utilization management, member rights and responsibilities, preventive health services, and medical records.

Socioeconomics

Minneapolis and St. Paul Children's Hospitals to Merge

The parent companies of Minneapolis Children's Medical Center and Children's Hospital of St. Paul plan to merge the two hospitals but will keep both facilities operating, the hospitals announced in March. The hospitals will form a new parent corporation, which will have combined assets of approximately $173 million and a net worth of approximately $83 million.

"We need to have cost reductions to gain efficiencies, improve our quality, and create a networker system of care," said Brock Nelson, president of Children's Hospital of St. Paul. "We're better able to deal with those factors by coming together."

The merger is subject to final approval from the hospitals' boards and regulatory approval from state and federal governments.

Methodist Hospital Plans Layoffs

Methodist Hospital in St. Louis Park is laying off employees for the first time since it opened 100 years ago. The hospital attributes the layoffs to fewer admissions, shorter stays, and anticipated state and national changes in the health care industry. The hospital predicted in early April that the cutback would involve fewer than 75 of its 2,600 employees and that some employees would be assigned to other jobs.

HMOs Record $59.7 Million Surplus

Minnesota's health maintenance organizations recorded $59.7 million in surpluses for 1992, according to the Minnesota Council of HMOs. Although the HMOs are technically nonprofit, they are required under state law to maintain reserve funds large enough to pay all claims for at least a month. The surpluses were transferred into the HMOs' reserve funds, which now average enough to cover claims for 1.8 months. More than 60 percent of the surplus is from interest and dividends the HMOs earned on reserves accumulated during the past four years.

HealthPartners, Minnesota's largest HMO, with 575,242 enrollees, contributed 0.6 percent ($5.1 million) of its $861 million in revenue to its reserve fund. It would have lost money last year if it hadn't earned $10 million on the surpluses it built up during the past five years. Medica, which covers 553,900 people, put 3.6 percent ($34.8 million) of its more than $961 million in revenue into its reserve fund. Blue Plus, the state's third-largest HMO, with 179,800 enrollees, transferred $8.4 million into its reserves.

HealthPartners raised its premiums by an average 8.9 percent last year, and Medica by 10 percent. Earlier this year, the consulting company Foster Higgins reported that the cost of traditional indemnity health insurance increased 18 percent in the Twin Cities. The number of Minnesotans belonging to HMOs increased last year, up 3 percent to a record 1.4 million people.

Physicians Sue Over Provider Tax

Eight physicians who practice outside Minnesota have sued the Minnesota Department of Revenue for attempting to tax them under MinnesotaCare. The legislation's 2 percent tax on physician receipts, effective January 1, 1994, applies to out-of-state doctors who treat at least 20 Minnesotans a year.

The American Medical Association is helping to finance the lawsuit with medical societies in Wisconsin, South Dakota, North Dakota, and Iowa. "It's taxation without representation," said Jack Bierig, an attorney with Chicago-based Sidley and Austin, which is representing the doctors. He said the tax violates the U.S. Constitution's commerce clause and the 14th Amendment's due process clause. "These physicians don't have offices in Minnesota, and they don't live in Minnesota. They don't even have a vote in Minnesota, yet they're being taxed to pay for health care for people in Minnesota," he said in an April 5 *American Medical News* article.

Some hospital associations in the neighboring states also might sue. According to Debbie Waite, general legal counsel for the Wisconsin Hospital Association, the money collected from Wisconsin hospitals is small, but the paperwork and principle involved are not. In an informal survey, the association found that about 25 to 30 Wisconsin hospitals treat 20 or more Minnesota patients at a projected total annual tax of about $300,000.

Minnesotans, Americans Ready for Health Care Reform

Minnesotans say they are ready for changes in the health care system to lower costs and ensure availability of care, but they oppose limitations that restrict provider choice, medical procedures, and technology, according to a recent statewide poll commissioned by the Medica Foundation and conducted by Stan Greenberg.

Greenberg's data showed Minnesotans are looking for a partnership between the government and private sector to contain health care costs and ensure statewide health insurance. Although respondents said they want government to play a role in health care reform, they are resistant to a system run solely by the government.

A number of Minnesotans say they are ready to consider some limitations in their care to contain rising costs. The poll showed they are receptive to restrictions that would require a referral before a patient can see a specialist, limit tests and procedures according to symptoms, and confine expensive equipment to certain hospitals. However, people were less accepting of waiting for services or traveling long distances for care.

A report released by United HealthCare Corporation's Center for Health Care Policy and Evaluation says Americans want to change the nation's health care system, but they don't know what should replace it. The report, called "A Clear and Present Crisis: Americans' Attitudes Toward Health Care in the United States," analyzes the results of several surveys nationwide. Highlights of the study's 31 findings include the following:

- nine of 10 Americans (91 percent) believe there is a clear and present crisis in the nation's health care system;
- in general, a majority of Americans believe high and rising costs are the crux of the health care crisis. Concerns about quality and access to health care rank a distant second and third;
- most Americans are satisfied with their own access to health care and support equal access to health care for all, regardless of ability to pay;
- to a certain extent, Americans view doctors, hospitals, health insurance companies, and lawyers as culprits in the health care crisis;
- Americans think the federal government must lead the way to

health care reform; at the same time, they do not trust the government to manage the system.

Physicians Sympathetic to Clinton's Health Care Approach

A recent survey of physicians revealed that most (58 percent) are sympathetic to President Clinton's basic approach to health care reform—managed competition—even though they believe it would reduce their incomes and limit their authority. Their conditional support was based on a belief that managed competition would improve access to health care while preserving patients' choice of doctors. The poll, by the Times Mirror Center for the People and the Press, found that 64 percent of physicians believe the nation's health care system needs fundamental changes, 10 percent believe it needs to be completely rebuilt, and 24 percent believe it needs only minor changes.

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The 408 doctors interviewed in the poll expressed little confidence that either Congress or the president's Task Force on National Health Care Reform will produce wise recommendations about how to change the health care system, but 62 percent expressed confidence that the American Medical Association would have good recommendations.

Local Agency Receives Grants

The East Metro Community Health Network received grants totaling $1 million from five foundations to be distributed over the next three years. The grants will be used to finance a project to improve access to health care for low-income residents in the east metropolitan area of St. Paul. The Robert Wood Johnson Foundation Local Initiative Funding Partners Program, the nation's largest health care philanthropy, granted the network $500,000.

The Saint Paul Foundation, The St. Paul Companies, Mardag Foundation, and the F.R. Bigelow Foundation, all of which participated throughout the network's planning and formulation process, will match the Robert Wood Johnson award.

The East Metro Community Network was formed three years ago in an effort to better meet the needs of the area's lower-income residents. It's an alliance of nine community-governed health centers working as equal partners with the St. Paul and Ramsey County Public Health departments. Member clinics are American Indian Health Clinic, Common Health, Face to Face Health Counseling Services, Family Tree Clinic, Health Start, Helping Hand Health Center, Model Cities Health Center, North End Medical Center, and West Side Community Health Center.

State Proposes New Workers' Comp Reform

The State Department of Labor and Industry proposed in March a system that would reward employees with cash incentives for keeping workers' compensation claims to a minimum. Called the Individual Security Account system, the program would distribute money left in a cash pool after covering claims for a certain period. Proponents say the plan would reduce unnecessary payments without changing coverage. The only place that uses a similar system is Singapore, said Greg Frank, spokesperson for the Labor Department.

Certain workers' compensation expenses would be deducted from a shared pool, which would be funded by employers and administered by the Labor Department. Treatments needed to return a worker to the job after an injury would not be deductible from the pool. Other expenses, such as treatment after a physician clears a patient to return to work and heath club memberships, would be deductible. Rep. Wayne Simoneau, DFL-Fridley, introduced a bill in March to create the system.

Eau Claire Clinic, Hospital Expanding

The Mayo Foundation said in April it plans to spend $39 million to integrate and expand services at Luther Hospital and Midelfort Clinic in Eau Claire, Wisconsin. Both organizations merged with Mayo Clinic last year.

The expansion will include about 40 new physicians over the next few years. In addition, Mayo also plans to construct a new outpatient facility connected to Luther Hospital, expand cardiac services at Luther to include open-heart surgery, add a helicopter ambulance service to provide better emergency service in a 200-mile radius, and move Midelfort's neurosciences department to Luther. The neurosciences department has been based at Eau Claire's other hospital, Sacred Heart, for almost 20 years.

Luther and Midelfort currently employ about 1,650 people. The expansion could result in more than 250 additional health staff positions.

Rates, Trends, Data

Violent Teen Deaths on the Rise

Teen suicide rates in Minnesota increased 78 percent in the 1980s, more than four times the national increase, according to a study by the Northwestern National Life Insurance Co. Minnesota now ranks in the top 10 for youth suicide rates. The other nine states are scarcely populated Western states, where evidence suggests suicides are related to rural isolation and tough economic times for farmers.

The national suicide rate among adolescents 19 and under increased 18 percent between 1980 and 1989, the most recent year for which state-by-state rates are available. Hawaii's rate increased the most, 126 percent, followed by Idaho and Wyoming.

Minnesota's rate increased from 2.7 deaths per 100,000 adolescents in 1980 to 4.8 deaths per 100,000 in 1989. Alaska had the highest rate at 9.6 deaths per 100,000 adolescents.

Analysts at Northwestern National Life believe the increase is related to higher levels of teen stress, drug and alcohol abuse, and unresolved family conflict.

Meanwhile, guns killed 4,173 U.S. youths aged 15 to 19 in 1990—an average of 11 each day—the highest rate since the government began keeping track 30 years ago. The government reported 2,498 deaths in 1985. Only vehicles kill more teens—almost 6,000 in 1990.

Innovations

Company Testing Water Jet to Remove Blood Clots

Possis Medical of Golden Valley, Minnesota, is starting clinical tests on a device called Angiojet, which uses water jets and saline solution to remove blood clots from leg arteries and vascular grafts. The company is known for its pacemaker leads and is also developing vascular graft products.

The two- to four-minute process requires no surgery. Physicians thread a thin, flexible catheter over a guidewire to reach the clot. A freestanding unit then

K. James Ehlen, M.D.
Chairman, CEO Medica

Medica Operations in 1992 Contribute to Financial Stability, Lower Costs

Participating physicians, whose cooperation in managed care programs kept utilization rates level from 1991 through 1992 for inpatient and outpatient services alike, are major contributors to Medica's success last year.

Medica saw continued decreases in the most expensive areas of health care in 1992, hospital admissions and average length of hospital stay. At the same time, there have been excellent results from medical management programs, including preventive care and wellness education.

Medica's successful operations in 1992 allowed a return of full physician contingency reserves plus interest, strengthening of financial reserves and maintaining competitive premium rates while paying more in benefits for its members.

Medica Choice participating physicians got back $23 million of PCR money that included interest on the fund.

Medica added $9.7 million to reserves at the end of 1992 on revenues of $961 million. This is an operating margin of one percent, down from two percent at the end of 1991. Another $25.1 million was contributed to reserves in interest earned on reserve funds.

In 1992, Medica paid $850.5 million in health care claims. At the same time, the plan spent nine percent of premium income on administration and selling expenses, down from 11 percent in 1991.

Continued prudent management of the plan's reserves allows Medica to moderate increases in premiums. The average premium increases for commercial groups in 1992 was just ten percent, down from 11.6 percent in 1991. We expect 1993 premiums to average in the single digits.

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pumps high-pressure saline solution, which breaks up the clot and flushes out the remnants.

The U.S. Food and Drug Administration approved human testing of the device in eight sites in December.

AIDS Update

HIV Never Dormant

Researchers at the University of Minnesota and the National Institutes of Health have discovered that the AIDS virus is never dormant, as had been suspected. Long before symptoms of AIDS appear, the virus is actively reproducing itself, primarily in the lymph nodes, said Ashley Haase, M.D., head of microbiology at the University of Minnesota and senior author of the Minnesota report. Haase's report and a similar NIH study appear in the March 25 issue of *Nature*. The studies could lead to improved drug treatments to keep the virus in check, said Haase.

Researchers were able to count the number of cells being infected before the onset of AIDS using new equipment and a laboratory test that Haase developed. They examined lymph tissue from three HIV-positive people who died of drug overdoses before showing signs of AIDS.

Suit Filed Over AIDS Coverage

The University of Minnesota Hospital and the estate of Mark Kadinger, a St. Paul electrician who died of AIDS in November, are suing the union Kadinger belonged to because its health insurance plan limited his AIDS coverage. The suit is filed under the Americans with Disabilities Act, a federal law that considers AIDS a disability. The suit claims the union's health plan violates the act because it limits coverage in AIDS cases to $50,000 while it pays up to $500,000 for other illnesses. Medical care for AIDS patients typically costs between $50,000 to $100,000.

Minnesota requires health insurers to provide the same coverage for AIDS as other diseases, but the union's plan is exempt from state regulations under ERISA. Kadinger's union—Local 110 of the International Brotherhood of Electrical Workers—and the St. Paul Electrical Construction Medical Reimbursement Plan are defendants in the suit. MM

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Russia Revisited

Impressive Changes Emerging

Edmund C. Burke, M.D.

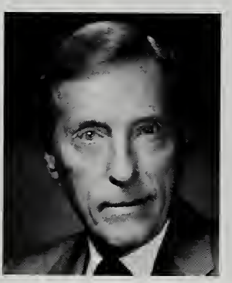
This past April, I had the opportunity to return to Russia, which I last visited in 1974. In previous visits, I participated in a health exchange program, working alongside Russian physicians as some Minnesota physicians have done recently (see *Minnesota Medicine*, April 1993, page 11). This time I was one of five chaperones accompanying 26 Minnesota high school students from the Rochester area who were participating in a 10-day educational tour in Moscow and St. Petersburg.

The first changes I noticed were mostly symbolic. Unlike my last visit to Moscow and St. Petersburg 19 years ago, no huge signs and billboards glorifying communism adorned the buildings. In fact, in 1974 St. Petersburg did not even exist; it was called Leningrad.

During my latest visit to Russia (my fourth), I noticed many things had disappeared since my last trip. Along with the billboards, many statues of prominent Communists were gone, and in place of the red Soviet flag, the white, blue, and red flag of the Russian Federation flew over the Kremlin. However, much of Russia still looked dirty and run-down, just as it had 19 years ago.

The most profound changes I saw in Russia had little to do with simply replacing names or flags. Many of the changes I could sense as well as see. Throughout my visit I never felt as though I was in a prison camp, as I certainly had before. I found it reassuring that, despite the political chaos, Russians have firmly taken up democracy. They were out protesting, putting up posters, and distributing pamphlets on both sides of the question of reform.

More importantly, though, I witnessed some effects of the startling transformations and tremendous upheavals in Russia's economy, government, and culture.



"Despite many dour observations, my visit to Russia was a source of great hope."

One of the most significant changes I noted is evidence of growing disparity in affluence among Russians—a widening gulf that manifests itself often in confusion, uncertainty, and crime.

While in Moscow, our tour guide told us that a small percentage of Muscovite entrepreneurs are becoming multimillionaires—something unthinkable only a few years ago. On the other hand, according to a physician friend of mine who also recently returned from Russia, many university professors earn the equivalent of about $30 a month. Survival on such a meager sum would be difficult, even without the ravaging effects of the country's incredible inflation.

Indeed, this rampant inflation has profoundly changed the lives of Russian citizens. Mere subsistence remains difficult for many as prices continue to skyrocket and as the ruble loses value. In April, the exchange rate was 740 rubles to the dollar. Now, it's more than 900 rubles to the dollar and rising. Ironically, while foodstuffs and consumer goods are more available than ever before, many Russians find it difficult to afford even the basic staples, such as meat and bread, because of inflation, weakening currency, and lower salaries.

Another effect of the turmoil in Russia is crime and begging—unknown, or at least not acknowledged, in the Soviet Union of 1974. On many occasions, children as young as 4, 5, and 6 approached us pleading for money. Some students' luggage was stolen. I can see why some Russians would become desperate, considering the confusion as the country converts its previously state-run economy to a market-driven one.

Despite these dour observations and impressions, my visit to Russia was a source of great hope. The American students developed friendships with students in Moscow and St. Petersburg that were so genuine and sincere I began to wonder if we shouldn't leave international relations to our youth. Appropriately, one of the classrooms we visited was dedicated to Samantha Smith, a girl from Maine who wrote to the Soviet government in 1986 about her fears of nuclear war. Her letter led to the introduction of cultural exchange programs that continue to flourish.

So much changed between my visits to Russia, most for the better, that I came back feeling confident that the Russian people will weather their current political and economic storms. Obviously, it won't be an easy task; reformers such as President Yeltsin have their work cut out for them. But the effort will be worth the cost to ensure that the Russia of 1974 never returns. In that sense, the Russian people deserve all the help we can offer, for both our countries' sakes. MM

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3-oz. cooked serving
of chicken breast

Best of pork

3-oz. cooked serving
of pork tenderloin

Today's Pork: Compare it to chicken for a healthy surprise

You may not have considered pork to be a healthy choice for your patients on fat-modified diets. But today's fresh pork compares surprisingly well to chicken in total fat, saturated fat, cholesterol, and calories.[1,2*]

Compare pork with chicken[1,2*]

	Calories	Total Fat	Saturated Fatty Acids	Cholesterol
Chicken Breast, skinless	140	3.0 g	0.9 g	72 mg
Pork Tenderloin, trimmed	139	4.1 g	1.4 g	67 mg
Pork Top Loin Roast (boneless), trimmed	165	6.1 g	2.2 g	66 mg
Center Loin Chop, trimmed	172	6.9 g	2.5 g	70 mg
Chicken Thigh, skinless	178	9.2 g	2.6 g	81 mg

*Table refers to 3-oz, cooked servings.

New study: Pork is now 31% leaner

Pork is leaner today because of significant changes made in breeding and feeding techniques.[1] According to new 1992 official USDA data, fresh pork sold today contains an average of 31% less fat after cooking and trimming than the same pork cuts reported in 1983.[1]

Today's pork fits well within the dietary guidelines recommended by both the American Heart Association and the National Cholesterol Education Program. Here's some advice to help patients on low-fat diets enjoy the variety, extra taste, and versatility of pork:

- Choose the leanest cuts. Shop for cuts with "loin" in the name.
- Trim away any visible fat.
- Keep portions moderate (about 3 oz, cooked).
- Prepare by broiling or roasting, and avoid additional fat in preparation.

1. US Dept of Agriculture. *Composition of Foods: Pork Products*, 1992. Agricultural handbook 8-10.
2. US Dept of Agriculture. *Composition of Foods: Poultry Products*, 1979. Agricultural handbook 8-5.

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Chronic Pain Story Well Done

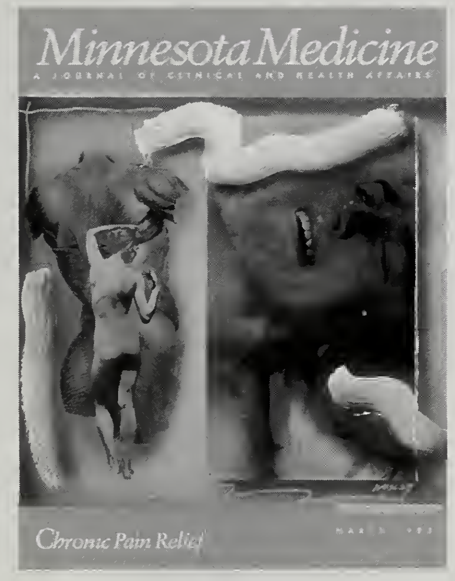
I am writing to commend you on your cover story, "Physicians Offer Chronic Pain Relief" (March 1993, page 14), which described chronic pain philosophies and programs available within the Twin Cities area. The article was well done and will do much to raise physicians' awareness of the availability of chronic pain programs.

However, I was disappointed to note that our particular program, Rehabilitation Associates Pain Management Program through the Minneapolis Clinic of Neurology, Ltd., was not mentioned. Our program is a comprehensive multidisciplinary approach and has been in place since 1983.

Jack E. Hubbard, M.D.
Neurologist
Minneapolis Clinic of Neurology
Burnsville, Minnesota

Specialization Major Factor in Health Care Inflation

I share some of Dr. Edmund Burke's opinions on regulating specialization in favor of primary care, as expressed in the April Editor's Notebook, "Let Marketplace Regulate Specialization," (page 5). Indeed, freedom to choose location and specialty is an attribute of medical practice that physicians hold sacred and is a part of the independence most physicians desire. Unfortunately, the luxury of this choice conflicts with today's economic realities in medical care. Therefore, despite the fact I have personally benefited from my option to practice pathology in Minneapolis, I might suggest some regulation of comparable options for young physicians in training.



Although you describe specialization as only one of several factors involved with inflating health care costs, I consider it a big factor. Many of the advanced medical technologies contributing to cost escalation are specialists' tools of the trade. Primary care physicians don't perform endoscopy, invasive cardiology, CABG surgery, or the myriad diagnostic and therapeutic procedures now limited to specialists. When patients bypass primary care physicians, seeking specialty care first, they are bound to pay more for treatments that do not necessarily improve outcomes. Specialists do what they are trained to do—perform sophisticated procedures. Reimbursement for advanced procedures is so generous that even the most principled and concerned specialists find it difficult to restrain themselves. Specialists view themselves as the final destination in health care, resulting in a "quest for certainty" philosophy that does not permit simply watching the natural course of a disease. Many disorders go away with simple observation, but specialty care demands answers, not watchful waiting. A primary care doctor might say, "Let's see what happens"; the specialist is less likely to do so. When specialists treat patients with everyday problems, treatment gets complicated and inherently expensive.

In addition, when a patient has symptoms or signs suggestive of a problem outside the specialist's sphere of interest, who does the specialist call for assistance? You're right—another specialist. Whereas primary care physicians are trained to see the patient as a whole person, specialists often are comfortable only in their particular organ system, resulting in unnecessary consultation.

Without arbitrary regulation or mandatory placement in primary care or subspecialization, certain options are available to improve the proportion of doctors who opt for primary care. First, the medical education debts that plague recent graduates could be forgiven, whole or in part, by government subsidies for those who select primary care. The government would recoup this subsidy cost by the economic benefits acquired through more primary care physicians.

Second, the financial incentives that contribute so mightily to specialty selection by young physicians could be significantly modified by changing the fee structure incentives extant for diagnostic and therapeutic busywork. If gastroenterologists did not get paid so well for performing endoscopies and mucosal biopsies, we might see less gastroscopy in young patients with "heartburn." Likewise, if coronary angioplasty was not so well reimbursed, I can bet that its indications would be more closely adhered to. And if prostatectomy was not so well reimbursed, I bet that the push for PSA screening in asymptomatic populations would be less pronounced, and, as a result, a few more elderly men would retain their prostates.

There, I've said it. I have succeeded again in offending my few remaining friends in medical practice. Nevertheless, hoping that more physicians will opt for primary care will not make it so. I fear some form of action will prove necessary if we are to achieve any control over health care cost inflation. That action could be a combination of incentives and disincentives, rather than arbitrary regulation and government edict.

Seymour Handler, M.D.
Pathologist
North Pathology Associates
Robbinsdale, Minnesota

Flawed Marketplace Reason for Too Many Specialists

I started reading with excitement your Editor's Notebook in the April *Minnesota Medicine,* "Let Marketplace Regulate Specialization." I basically agree that quotas are not the way to go and that market forces are preferable. However, your editorial failed to address the marketplace flaws that have caused the current disparity in the production of comprehensive and limited practice specialists.

Historically, the marketplace (i.e., third-party payers) has failed to recognize the value of evaluation and management services but has been willing to pay almost any going price for procedures. Early on, generalist physicians could make up the difference in payment by charging relatively high charges for procedures. As practice parameters have become more restrained and specialized in the performance of procedures, the disparity of reimbursement has become so wide that primary care has become unpopular as a specialty. Add to this the increased hours and stress of comprehensive practice and there is no incentive to pursue this area of medicine.

If marketplace forces are expected to regulate specialization, the equivalent of an affirmative action program will be necessary to encourage adequate pay for evaluation and management services at the expense of procedure codes. I would point out that much of evaluation and management service is unreimbursed by Medicare except for hands-on care, and then with a system of codes that at best is confusing.

Medical schools should be competitively rewarded on an outcomes-based assessment of graduating class specialties. I believe that an outcomes-based assessment would set the stage within the medical school for a teamwork approach for training comprehensive care specialists for their rightful place in the new medical system.

Kenneth R. Carter, M.D.
Family Physician
Granite Medical Center, P.A.
Granite Falls, Minnesota

Let Taxpayers Regulate Specialization

In your April editorial, "Let Marketplace Regulate Specialization," you disagreed with Arthur Caplan's recommendation that we should emulate Canada, which closely regulates the number of specialists medical schools can train. I fully support your right to express your opinion on this issue; however, I take exception to your statement that "it's wrong for society to force medical students into certain career paths." If my information is correct, a substantial amount of tax dollars are found in the budgets of every medical school in the United States, whether they are state universities or private schools. If that is true, then the taxpayers have a legitimate right to withdraw tax dollars from medical schools that continue to train excessive numbers of subspecialists and fail to train adequate numbers of primary care physicians.

Arvid J. Houglum, M.D.
Retired Family Physician
Grandview, Texas

Rapid Strep Assessment

We recently completed a retrospective quality assurance assessment of the Rapid Strep procedure. Questions developed when we noted that other clinics had discontinued performing Rapid Strep after encountering a number of false negatives. We decided to analyze 1992 statistics taken from laboratory records.

The methodology: First, a physician or a trained laboratory technician collected a specimen for strep. The methodology used was the Rapid Immunoassay for Antigen Detection made by Abbott. The Abbott Strep A Test Pack Plus procedures were performed immediately after collection. A positive Rapid Strep result was not plated out or followed, but was treated instead as a known positive. The negative Rapid Strep results were all plated on a 5 percent sheep blood agar with TSA and were reevaluated in 24 hours.

A total of 3,599 strep procedures were performed. Of these, initially 803, or 22.3 percent, were immediately positive. The initial Rapid Strep negatives totaled 2,796. These negatives were all plated out and reassessed on the 24-hour plate. The results were: 114 positive for Group A beta hemolytic strep, 389 positive for nonbeta hemolytic strep, and 2,293 negative. Only the beta hemolytic strep positives were considered pathogenic for treatment. Thus, our results found that 4.1 percent of the original 2,796 false negatives converted to positive on the sheep blood agar and required additional intervention and treatment.

We have reviewed this data and find that the Rapid Strep procedure continues to be of significant value in our laboratory, and we will continue to use it as a screening tool in managing streptococcal infection of the throat.

C. H. Seecamp, M.D.
Laboratory Director
Family Physician
Professional Medical Associates
Cambridge, Minnesota

Innovative Planning Helping MMA Flourish in Turbulent Times

Minnesota Medicine interviews Andrew J. K. Smith, M.D.

Organized medicine in Minnesota faces tough, new challenges today as the state and nation grapple with health care reform. In response to recent changes and trends in the health care system—such as the growth of large provider organizations—the Minnesota Medical Association has actively engaged in improving its role as a representative and support organization for nearly 9,000 Minnesota caregivers.

Andrew J. K. Smith, M.D., chair of the MMA's Board of Trustees, believes the organization cannot afford to remain static.

"As the medical world changes, so must the MMA change," says Smith in the following interview. "And that's exactly what we've been doing."

As part of a long-range plan to better meet its members' needs, the MMA has changed many facets of its operations. It has added a new Department of Member Relations that is using new marketing approaches to identify and address physicians' concerns. In addition, the association has expanded its legislative staff advocating changes in health care and has initiated many new communications projects, ranging from a newsletter on MinnesotaCare to a recent public relations campaign promoting awareness of family violence.

"It's all part of the association's ongoing strategic plan to ensure that what we do continues to be relevant to all physicians," says Roger Johnson, MMA director of Member Relations. Through its many new initiatives—including outreach programs and its model Clinics Without Walls—the MMA hopes to increase member physicians' participation and interest in the association, as well as add about 1,400 new members to its roster by the year 2000.

Smith has long been active in the MMA and is chair of its Strategic Planning and Communications committees and a member of the Policy Implementation and Minnesota Medicine *Advisory committees. He is a neurological surgeon at Minneapolis Neurological Surgeons, Methodist Hospital, and North Memorial Medical Center.*

Andrew J.K. Smith, M.D.

> "As the medical world changes, so must the MMA change."

Minnesota Medicine: Please tell our readers a little bit about how and when you became involved in the MMA.

Smith: I first became involved in MMA activities about eight years ago, when I participated on a workers' compensation task force. I enjoyed that work. I found it important and relevant to my practice of neurosurgery, and I got hooked. Since then, I've been involved in a long line of other committee appointments and assignments, and I have enjoyed every minute of it.

Unifying Physician Interests

Minnesota Medicine: Physicians are members of numerous organizations, including the MMA, county medical societies, specialty societies, and group practices. What role does the MMA play for the individual physician in this organizational maze?

Smith: Each of the organizations you mentioned provides something the physician needs, but the MMA most directly represents the views of *all* physicians. This advocacy on behalf of all physicians has been particularly important recently as the health care reform debate has gained momentum. The MMA has allowed physicians to speak with a strong, unified voice in the media and at the state Legislature, for example.

There are those who are very interested in diminishing the role of physicians in the health care system. One of the most effective tools at their disposal is the old "divide and conquer" tactic. Here in Minnesota, the MMA is *the* countervailing force to that tactic, providing an umbrella organization for all physicians.

Responding to Changes in Health Care

Minnesota Medicine: The world is changing rapidly both in Minnesota, with MinnesotaCare, and in Washington, with Clinton's reforms. Is the MMA able to keep up with these developments and appropriately respond to them?

Smith: Issues management was designated a priority for the MMA in our recently adopted strategic plan. As a result, we have expanded our staff in the policies and issues area, formed a special MinnesotaCare Task Force, and expanded the role of the Executive Committee in responding to late-breaking developments.

Minnesota Medicine: How has the MinnesotaCare legislation changed the Minnesota Medical Association's direction and how has it affected MMA management?

Smith: The MinnesotaCare legislation has set in motion some of the most profound changes and challenges to the practice of medicine I've witnessed. The legislation proposes change of such magnitude and in so many important areas that the MMA has been taxed just monitoring it. The legislation has forced the association to address a number of issues that our physician members feel very strongly about. Many agree with the positions the MMA has developed, but some do not. Consequently, we must work diligently to educate members about the real issues and why we've addressed them as we have. We try to listen to all members' concerns and to accommodate them in our thinking.

> "Most physicians believe organized medicine can speak on their behalf in a way that large multispecialty clinics cannot."

Minnesota Medicine: Tell us more about how the MMA has dealt with dissonance among the membership. How does the organization respond to physicians who are still in the ranks but who have views that diverge from the MMA's position?

Smith: We use every opportunity to talk with them and to understand why they feel as they do. For example, we've focused much of our attention over the last year on some of the concerns our rural physicians have about proposed health reform legislation. Much of the legislation, both in Minnesota and nationally, would require that physicians integrate their practices in novel ways. Many physicians, particularly those in sparsely populated rural areas, aren't convinced this will work for them. We've tried to protect their interests.

Minnesota Medicine: Has the MMA developed a strategy with regard to national health care reform efforts?

Smith: Right now we're in the same position as everyone else—we don't know exactly what direction the national health care reform legislation will take. One week the media indicate President Clinton is leaning toward managed competition, the next week we read that the whole concept may be too complex to implement. We expect there will be major health care reform legislation and that it will very likely be some form of managed competition or a hybrid of it. Although there is increasing interest in a single-payer system, the nation doesn't appear ready to go in that direction. The medical association is busily trying to educate membership on how to respond.

Surviving Turbulent Times

Minnesota Medicine: In the future, physicians will increasingly participate in or be employed by large organizations, such as physician-hospital organizations, closed panel HMOs, and large group practices. How do you envision the MMA surviving and flourishing in that environment?

Smith: As the medical world changes, so must the MMA change, and this is exactly what we have been doing. For example, for a number of years we had linkages predominantly to the county medical societies, and that served us quite well. But in recent years, we have reached out to the large clinics, to the state medical schools, to hospital medical staffs, and directly to physicians through surveys and other communications efforts. As physicians are offered more and more opportunities to join large groups, the medical association must reach out to those groups to maintain its relevancy to them. While we do that by virtue of our advocacy on behalf of all physicians, that's not enough. Recognizing that the world of medical practice is becoming more consolidated, the MMA has worked with the Hennepin and Ramsey county medical societies to develop a model for "Clinics Without Walls." The model structure would help physicians in smaller, independent practices integrate their services so that they can function more like large group practices. This kind of innovative planning will help the MMA flourish in the turbulent health care environment.

Reaching Busy Physicians

Minnesota Medicine: How does the MMA inform the membership about fast-changing issues?

Smith: I have recognized, as others have for some time, that the ability to communicate quickly and effectively with our members is one of the most important reasons for the existence of a medical association. That has never been more true than during a time of marked change, such as we're going through now. I'm pleased to report that our just-completed membership survey showed 74 percent of members are satisfied with information provided by the MMA on political issues affecting physicians. Still, despite this high rating, we are seeking to improve. This year the MMA has initiated several new communications vehicles, including our new 800-DIAL-MMA hotline, an instant FAX service, and a special *MinnesotaCare News* supplement to the *Monitor*. We have also started conducting focus groups around the state to get input from the members regarding issues that concern them. Finally, our officers and senior staff have made numerous presentations across the state to keep members informed.

Minnesota Medicine: How much physician apathy have you encountered during these outreach efforts?

Smith: There is a commonly held notion that it is difficult to get busy practicing physicians involved in organized medicine and in the affairs of their hospital medical staffs. Interestingly, in our recent membership survey, more than half of all respondents said they would consider becoming more involved in the MMA's committee structure. On the other hand, only about 3 percent said they would be interested in becoming leaders, which would imply a much greater commitment of time and energy. To me, this does not suggest that doctors are apathetic about the medical association, but it does suggest that they don't have the time to become involved on a daily basis, as many of our leaders are now.

Minnesota Medicine: Membership can be one measure of an organization's success. How have the association's membership numbers changed in recent years?

Smith: Membership has increased over the last year. Some interesting facts emerged from a membership survey we conducted this winter (see "Taking the Pulse of Minnesota Physicians," page 27). Results showed that the highest membership rate is among physicians over age 45; close to 90 percent of these physicians belong to the MMA. The numbers drop off slightly among younger physicians, closer to 80 percent.

Minnesota Medicine: Do you have an explanation for the reduced numbers among the younger physicians?

Smith: A number of factors have been identified in our strategic planning process. The cost of MMA, AMA, and county medical society membership is certainly one factor. But more significantly, growing numbers of our members are now employed by or working in large group practices. These physicians may feel that their multispecialty clinics can offer many of the activities that organized medicine has traditionally provided. I do think, however, that most physicians believe organized medicine can speak on their behalf in a way that large multispecialty clinics cannot. Interestingly, even among segments with the lowest membership rates, more than 70 percent still choose to join the MMA.

Improving MMA Structure

Minnesota Medicine: The MMA's current governance system is based on an elected House of Delegates and a Board of Trustees. Is the system working, and what changes do you see for the future?

Smith: As board chair, I've had the opportunity to observe at close hand the workings of the House of Delegates and the Board of Trustees and its committees, including the Executive Committee. It has been gratifying to see the collective wisdom emerge from the House of Delegates and the board on some very complex issues. However, as with other aspects of the organization, we're seeking ways to improve our governance, which is currently under study by the MMA's Strategic Planning Committee.

Building Leadership Skills Through MMA Membership

Minnesota Medicine: Physicians have many demands on their time and may ask, "Why belong to the MMA?" In your experience, what are the rewards of being involved in organized medicine?

Smith: The rewards of involvement in organized medicine are clearly related to one's level of interest in medical association affairs and ability to commit time and energy to committee work and leadership tasks. In my own personal experience, I have valued particularly the opportunity to work closely on the MMA Board of Trustees with a group of very capable and dedicated physicians from all over the state and to have an input on numerous important health care issues of our day. Association membership is an excellent way to build leadership skills and to give something back to a profession that has been very good to all of us. MM

"Ron's Rule—I give myself one week to meet new people and start having fun on a locum tenens assignment. It hasn't failed me yet."

Ron Richmond, MD, joined the CompHealth locum tenens medical staff when he completed his residency. He wanted to travel. He loves to meet people. A little time off sounded really good. And he thinks being exposed to different types of medical practice will serve him well when he returns to his hometown to establish a community health center.

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Thoughts on Medical School Graduation

Monica Myklebust

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Many things have come to pass in these past four years

Earthquakes have shaken San Francisco
The Berlin wall has been torn down
Hurricane winds and rage have destroyed, humans have rebuilt
American bombs have killed, American soldiers have fed the starving
Poetry has celebrated our president's inauguration
Ethnocentricity has carved up land and lives
Thousands of people, famous, unknown, have died of AIDS
Each of us has held a child in his first minute of life
We have swallowed insults and inhaled stressors
We have watched as death consumed body, as spirit battled death
We have ridden the roller coaster of elation and delusion,
 of success and disappointment, of opportunity and entrapment

We are to be commended

For returning to the stench of the anatomy lab to find revealed the glory and intricacy of the human body
For pulling ourselves out of bed on mornings when dealing with illness and suffering seemed more than we could face
For sitting ourselves down, night after night, weekend after weekend, to our books, feeling we could never know enough

We are to be commended

For accepting the difficult patient
For continuing to believe that we can make a difference in people's lives

Today society sanctions us as healers

May we open our senses to the pain and to the possibilities
May we expose our egos and through empathy gain insight
Let us recognize all the healing forces around us—mothers, nurses, fathers and therapists, laughter, animals and hope, sisters, music and belief, brothers, companionship and touch, spirituality and time
Let us never forget what it took to get to this day
Let us never lose the naive wonderment of all that is medicine
May we always take time to play with children
May we be ever cognizant of the privilege and immense responsibility of our position in society, for always a future doctor is watching.

◆

Monica Myklebust graduates from the University of Minnesota Medical School this month and will be starting a three-year family practice residency at the Mayo Clinic in Rochester, Minnesota. She is student director of the Minnesota Academy of Family Physicians.

Compassion, Common Sense, Attention to Basics

Finding the Heart of Medicine in Developing Countries

Michael C. Shannon, M.D.

As our own country torments itself with discussions about how to "fix" our health care system, I thought it useful to put those discussions in the broader context of international health, particularly regarding health care in developing countries, and to put our own health care crisis into perspective. As medical director for Minnesota International Health Volunteers (MIHV), I have responsibility for the organization's programs, which currently include a maternal and child health project in Dagoretti, Kenya, and a second project soon to start in Sembabule, Uganda. Part of my responsibility is working with U.S. volunteers who go overseas to work on our projects. Consistently, these volunteers have remarked how much their international health experience changed their lives—forever.

I know firsthand how significantly experiences in developing countries can affect one's life, both personally and professionally. My first experience in international health was as a medical student in Kenyatta National Hospital in Nairobi, Kenya. The government provides health care in Kenya at no cost. However, the country's resources are insufficient to handle the demand. Kenyatta has a 250-bed emergency room, but there is no triage. Patients can literally spend days in the emergency room before being treated. Government-operated outpatient clinics typically run out of supplies before the middle of the month, leaving staff without the means to treat the patients who come to them. Because the outpatient system is inadequate, people continue to swamp Kenyatta's emergency room.

My second international health experience was as an MIHV volunteer near Kampala, Uganda, in 1983. Following the devastation brought by the Idi Amin regime, MIHV became partners with the Institute of Public Health at Makerere University in order to rehabilitate the Kasangati Health Center. Once the plum of health care in East Africa, nothing was left at Kasangati.

Our first order of business was the physical restoration of the building. We had to initiate basic health services before we were ready because there were many war casualties and little help was available. After two years, we began a community-based outreach program to educate and treat families who could not obtain even basic health care during the country's civil wars. Through this program, we trained members of the community to promote health through community motivation, to educate patients about healthy practices, to treat certain diseases, and to collect data. At that time, AIDS had not yet been identified nor its methods of transmission determined. Patients with symptoms of AIDS were diagnosed simply with "slims disease."

My own experience is not unique. I asked colleagues to comment on their experiences and how those experiences changed their view of the medical profession. The following excerpts, presented in a narrative collage, are just a few examples of the comments I received:

"International health became my second professional career, one that has been a rewarding and perhaps more exciting career than my earlier rural group practice during the 'golden years of medicine' in southern Minnesota. Thanks to early clinical training in medical school and in the hospital, I was comfortable using only my head, eyes, nose, ears, hands, and stethoscope to diagnose most illnesses. In spite of limited technical and specialty consultation services—and because of an excellent laboratory and a good x-ray machine (by default, I was the radiologist, too)—we kept empiric treatment to a minimum. The government did not interfere in any of our operations, although it provided 70 percent of operating funds. No malpractice insurance was necessary, and there were no in-hospital snooping committees or third-party payers, so we concentrated all our time, energy, and resources on caring for sick people. The patients felt deeply grateful for what we provided, even to the point of bringing us gifts of food—such as a bunch of bananas, a chicken, some country rice, or a pineapple—despite their limited resources. In many ways, the overall picture was reminiscent of civilian practice during WWII and the 1950s, before the entanglements of government and insurance companies became so pervasive."

–Neil Nickerson, M.D., F.A.C.P., Internal Medicine, Retired, Past Medical Director, MIHV

"Third World medicine is a refresher course unlike any required to keep a medical license."

"Third World medicine is a refresher course unlike any required to keep a medical license. Practicing medicine in a developing country is one of the best choices I have made. I returned to medical practice in the United States knowing more about human nature and the needs of my patients. I saw little problems for just what they were—only a small piece in the puzzle. Patients' real problems, those of long and short range, had become the primary focus for me."

–Elizabeth K. Jerome, M.D., F.A.A.P., Pediatrics, Retired, MIHV Director and Volunteer

"The clinic in Dagoretti, Kenya, is on the high end of a long and gently sloping hill. At the bottom of the hill, near the town's main market, is a slaughter house that regularly dumps untreated refuse into a nearby stream. The stream flows into the local fields and joins other water sources, which results in overall gross contamination. The foul stench alone is enough to let one know the stream is polluted, but local water specialists confirmed the presence of chloroforms, fecal bacteria, and other contaminants. The community has little choice but to use the stream for irrigating its crops, for washing and hygiene, and, in some cases, for drinking water. It seemed foolhardy to sit on top of the hill and treat the unending number of patients with dysentery, skin infections, acute respiratory illnesses, and other health problems, all of which were caused or aggravated by the slaughter house at the base of the hill. The excitement of public health came alive for me there. The community's health depended more on the quality of the water supply than it did on the quality of curative care offered at the clinic."

–Jim Sanders, M.D., Senior Resident, Family Practice, St. Paul-Ramsey Medical Center, MIHV Volunteer

"An international health experience can provide many valuable lessons to a physician. When working in a developing country, physicians must rely more on the art of medicine than on science because of scarce resources. They also learn the value of a good public health system to maintain the overall health of a population, as well as the importance of putting a personal face on the problems that present themselves. Providing health care in a developing country helped me realize the intimate relationship between resources, the quality of health care, and public health. For example, the principles of tuberculosis control are the same in Uganda as in Minnesota—it's just that there is such a huge disparity between budgets available to treat the disease. Much is possible if enough money and trained personnel are available. But how much is gained, and at what cost?"

–Neal Holtan, M.D., M.P.H., Internal Medicine and Preventive Medicine, Ramsey Clinic, Former MIHV Director and Volunteer

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As we continue the dialogue with our government about the future of health care in this country, let us hope that our profession, so highly honored and respected for generations, can gain back the public's esteem. The call to service upon which our profession is based can be fulfilled here in the United States as well as in the developing world. Craig Peine, an MIHV volunteer in Uganda, said it well: "Apart from all the technology, sophisticated treatments, and extensive pharmaceuticals, the heart of medicine involves compassion, common sense, and attention to the basics. ... My African experience highlighted what was absolutely necessary for the appropriate practice of medicine." MM

Michael C. Shannon, M.D., F.A.A.P., is medical director for Minnesota International Health Volunteers, based in Minneapolis. He is director of the Pediatric Residency at the University of Minnesota and a pediatric intensivist at Children's Hospital of St. Paul.

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AUGUST

6-7 **TECHNIQUES OF SPINAL INSTRUMENTATION WITH CADAVER DISSECTION**
Presented by the Spinal Science Advancement Foundation and Abbott Northwestern Hospital

SEPTEMBER

16-17 **THIRD ANNUAL PEDIATRIC CONFERENCE**
Presented by Children's Hospital St. Paul

OCTOBER

1-2 **ADVANCED LIFE SUPPORT OBSTETRICS (ALSO)**
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Presented by The Laser Center of Abbott Northwestern Hospital

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8 **INSIGHTS AND OUTLOOKS 93 AND THE JESSE E. EDWARDS, MD LECTURESHIP**
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COVER STORY

Advocates,
Teachers,
Detectives,
Doctors:

The diverse roles of public health physicians

In Minnesota, fewer than 10 of the 10,000 licensed physicians specialize in public health as a profession, but they have a profound impact on the health of the state. They serve as the first line of defense against epidemics. They monitor the immunizations of children. They help protect the public from contagions. Some also see their role as that of health care advocates for the needy. Although they work in a variety of areas in state and local health departments, they are all bonded by a common mission: disease prevention.

PHOTOGRAPHS BY ROB LEVINE

By Ralph C. Heussner, Jr.

"Public health is not a place of employment, but a philosophy and perspective that you take to wherever you practice medicine."

— *Edward Ehlinger, M.D.*

What motivates these individuals to opt for public service rather than clinical practice? Why, after the long, arduous years of medical school and residency training do physicians select public health for a career? What are the sacrifices, frustrations, and rewards in the work?

To find the answers, *Minnesota Medicine* interviewed two of the state's best-known public health doctors—Edward Ehlinger, M.D., M.S.P.H., director of the Minneapolis Health Department's Personal Health Services, and Kristine MacDonald, M.D., M.P.H., assistant state epidemiologist and assistant chief of the Acute Disease Epidemiology Section, Minnesota Department of Health.

The daily tasks of public health doctors are varied, ranging from teaching and writing to budget preparations and medical detective work. In addition, Ehlinger continues to practice clinical medicine.

From a public health physician's perspective, the concerns and values of doctors in public health careers are not unlike those of many clinicians in Minnesota. As Ehlinger suggests, "Public health is not a place of employment, but a philosophy and perspective that you take to wherever you practice medicine, whether it is an HMO, a private office, or a public health clinic. We need public health-oriented physicians in all of these situations."

EDWARD EHLINGER, M.D., M.S.P.H.

To be sure, Edward Ehlinger practices his philosophy in a variety of places. Consider:

- He spends a half day a week in a basement clinic of the Mount Olive Church in south Minneapolis, another afternoon in a clinic at Roosevelt High School, plus occasional visits to clinics at the downtown Minneapolis Health Department site.
- He's a regular lecturer in the School of Public Health at the University of Minnesota and a mentor for nurse practitioners and medical students specializing in preventive medicine.
- He often testifies before committees, legislative review panels, and the Minneapolis City Council regarding health matters.
- From his Fourth Street office in downtown Minneapolis, he directs 120 nurses, epidemiologists, social workers, nutritionists, and support staff who provide an array of public health programs that directly affect more than 20,000 people each year.
- He hosts a weekly medical show called "A Public Health Journal" on Metro Cable Network Channel 6 that covers topics from traditional medicine to health promotion and is broadcast throughout the Twin Cities metro area.
- And, once in a while, he slips in a public health message while storytelling—an avocation of his—at the Seward Cafe, located near the University of Minnesota's West Bank campus.

A native of Green Bay, Wisconsin, Ehlinger received his medical degree from the University of Wisconsin. After interning at Penn State, he joined the U.S. Public Health Service and was assigned the task of establishing clinics in two small Montana towns. From 1973 to 1975, he was a solo practitioner in Shelby and Horlowton, Montana, seeing between 40 to 60 patients a day.

"I saw first-hand the problems of health care delivery

> "The hallmark of public health is the focus on social justice, whereas the practice of medicine in our country focuses on market justice."
>
> — Edward Ehlinger, M.D.

in our country, including the obstacles posed by language and culture, lack of insurance, and the difficulty of traveling long distances to obtain primary care services. As a clinician, I dealt with the gamut of health problems, ranging from obesity to preventable injuries," Ehlinger says.

Ehlinger completed his academic training at the University of Utah with dual residencies in internal medicine and pediatrics. He then took on the twin challenges of studying rural health issues as a fellow with the Robert Wood Johnson Clinical Scholars Program while also attending the University of North Carolina, where he obtained his master's degree in public health.

He ventured to Minnesota in 1980 when his wife was accepted into a doctorate program at the university. Fortuitously, the Minneapolis Health Department needed someone with Ehlinger's background and training.

A Tripartite Job

"My role at the health department is basically threefold," says Ehlinger. "I spend about 25 percent of my time doing clinical medicine, 50 percent in administration, and another 25 percent in teaching, consulting, and research. Each could easily expand into a full-time activity, but I find that by doing a lot of different things, my job never gets boring or routine."

Ehlinger readily admits that the "highlight" of his week is practicing in one of the health department's clinics. Besides the satisfaction he gets from personal contact with patients, Ehlinger says there are other benefits from keeping his clinical skills fine-tuned.

"It keeps me in touch with the primary recipients of health care. I know first-hand their needs and problems. Second, it helps break down the hierarchical organization of our department by making me just another member of our health care team. And, third, it gives me credibility in the medical community."

One of Ehlinger's colleagues at the Minneapolis Health Department, Janny Brust, says Ehlinger's clinical work translates directly into more effective department programs. "Because Dr. Ehlinger sees patients in the community, he can link people with issues," she says. "For example, he not only knows intellectually that immunization is a problem for preschoolers in Minneapolis, but he's out there seeing and inoculating them. He knows which health services are being delivered and which are not."

Ehlinger describes his administrative functions as multifaceted—guiding program development, assessing community health needs, writing reports to governing agencies, and managing an annual budget of more than $6 million. He is able to do all this thanks to an excellent staff of dedicated professionals, he says.

His research interests span infant mortality, adolescent health, violence, and the many public health issues confronting urban areas. Recently, Ehlinger and his staff completed a comprehensive report on the health status of children in Minneapolis called "Kidstat," which revealed some alarming trends, including the finding that fewer than half of preschoolers in Minneapolis were immunized on schedule.

"That's horrible," Ehlinger says of the findings. "Part of the problem is poor access to care, but even kids who have access to a doctor or clinic aren't adequately immunized. Obviously, something is wrong with our delivery system."

Ehlinger also spends time as a teacher—a role he takes quite seriously. "We must remember that the word 'doctor' comes from the Latin 'docere,' which means 'to teach,' " he says. And he uses whatever means possible to teach, including weekly appearances on Metro Cable Network. Since 1985, he has hosted more than 185 shows. He received a Bush Fellowship in 1988 to return to school and learn video production techniques.

Satisfactions and Frustrations

Ehlinger's greatest professional satisfaction comes from dealing with diverse groups of people. "I find it exciting, enriching, and stimulating to work with people of different backgrounds and different perspectives," he says.

For instance, through his work with the elders of the Hmong community to help adapt Western medicine to their cultural traditions, Ehlinger has found that storytelling is much more effective than the usual didactic approach. "Rather than saying, 'take amoxicillin because that's what's needed to clear up your child's ear infection,' I will tell a story about how my daughter was sick and what I had to do to help her," he explains.

Ehlinger also believes that Western medicine should not supplant traditional medicine—so long as the latter is not harmful. "Western and traditional medicine must work in concert; people need both," he says.

Although Ehlinger enjoys his work as a public health physician, the nature of public health can be frustrating at times. "The hallmark of public health is the focus on social justice, whereas the practice of medicine in our country focuses on market justice. A very small portion of our nation's $900 billion health care system actually goes toward public health," Ehlinger laments. "I'm concerned that the goals of 'Healthy People 2000' [a federal report that outlines national health goals] will not be achieved without an increased emphasis on prevention. What needs to be addressed are lifestyle and environmental changes, rather than new treatments for cancer and heart disease."

Ehlinger fears the health care reforms the Clinton administration promises will result in more of a medical care marketing program than a public health plan aimed at prevention.

Despite Ehlinger's frustrations with some public health policies, he has no immediate plans to quit public health doctoring. In the future, he might consider a career in academia on a full-time basis or possibly in public health at the state or federal level, he says. But for now, he is satisfied pushing for a heightened awareness of the health needs of people in Minneapolis.

KRISTINE MACDONALD, M.D., M.P.H.

For Kristine MacDonald, a career in public health means diversity. On any given day, she may wear the hat of medical detective, medical writer, epidemiologist, or administrator. It is a job that requires her to adopt a "global perspective" on health problems, distancing herself from individual cases in order to see "the big picture."

Understanding public health problems also requires appreciating the social pressures at work in the community. "Public health is linked to social issues. There's no way to separate the two," she says. "When you look at the resurgence of disease in the inner city, that's not an isolated problem. It's related to poverty, lack of education, crime, and drugs; all of these factors are interrelated."

Her first look into public health came while an undergraduate at the University of Colorado during a "semester at sea" program that took students to various ports around the world for lectures and observation.

"Public health is linked to social issues. There's no way to separate the two."

— *Kristine MacDonald, M.D.*

"The program was a real eye-opener for me," MacDonald says. "I was exposed to poverty and health issues in the developing world. It made me aware of this huge problematic area. When I decided to go into medicine in my junior year, I had this experience in the back of my mind. It made sense that public health or the World Health Organization (WHO) would be an area that would appeal to me at some point in time."

After finishing medical school at Northwestern University and a residency in internal medicine at the University of Washington, Seattle, MacDonald spent two years as an epidemic intelligence service officer at the Centers for Disease Control (CDC). There she investigated outbreaks of botulism in Illinois, *Listeria* meningitis in Boston, and *Escherichia coli* in Washington, D.C. She also served as a consultant to WHO with assignments in the Philippines, New Guinea, Switzerland, and Brazil.

While working at the CDC, MacDonald accepted a preventive medicine residency and was assigned to the Minnesota Department of Health. In 1986, she became medical director of the health department's Division of Disease Prevention and Control. "I decided to stay because I had the opportunity to do a lot of work with a variety of infectious diseases. This health department is the best in the country in the area of infectious diseases. It also had a reputation for being very prolific in publishing results, and I always enjoyed writing," she says.

On the Job

Medical detective work is like solving a puzzle. The pieces come from a variety of sources, and they don't always fit snugly.

"Our leads come in a variety of ways. Most commonly, they are from physicians who report that they've seen one case or a couple of cases of a particular problem," she says. "We are in a position to put them together. Fortunately, we have enough core staff and resources to allow us to thoroughly investigate outbreaks and pursue issues that other state health departments cannot.

"For example, we had a situation with toxic shock syndrome of the lungs in children with influenza. The first report came from a doctor who had a case of a 12-year-old child with sudden death of unknown cause. Then we received a call from a pathologist who had seen two children die with sudden death of unknown cause. So there were three children in one week. It could be something, or was it purely coincidental? We jumped in and started surveying all of the community hospitals. After extensive investigation, we concluded that these children had TSS related to an outbreak of influenza with infection of *Staphylococcus aureus* in the lung. Influenza was the initial insult."

MacDonald credits an effective and responsive surveillance network of public health-conscious doctors, nurse practitioners, and school nurses with reporting problems before they reach epidemic proportions. Calls also come from private citizens and businesses.

When she isn't investigating disease outbreaks, MacDonald designs studies, prepares grant proposals, and writes manuscripts. She is editor of the *MDH Disease Control Newsletter*, which is sent to every Minnesota physician, and she has co-authored more than 100 abstracts and articles. Health education and communication with physicians are important parts of her job.

Rewards and Frustrations

Like Ehlinger, MacDonald finds the rewards of a

public health career different from those of clinical practice. "In clinical practice, you see a patient, the patient gets better, and you have a sense of immediate gratification," MacDonald says. "But in public health, you may work for years developing a program, and the results are more nebulous and difficult to measure. So you need to keep satisfaction in a broader perspective. There are some exceptions, though, such as preventing widespread disease by limiting an outbreak."

She also finds the diversity of her work rewarding. "There's a tremendous amount of variety in the public health," MacDonald says. "You never really know what is going to happen. New problems come up that a week before you had no idea even existed. One week it might be TB in schools, and the following week you might be touring a meat-packing plant."

Just as the rewards of public health service are numerous, so are the frustrations. "Dealing with bureaucracy can be a challenge. The system doesn't move as quickly as you'd like sometimes," she says.

Controlling the AIDS epidemic without a vaccine is the greatest public health frustration. "There's still a lot of HIV infection in the community, and AIDS remains a very important problem that we need to continue to focus on and try to get under control," MacDonald says. "Stemming the tide without a vaccine is a major frustration and challenge."

Unlike Ehlinger, MacDonald has minimal contact with patients, which she admits is a disappointment. At MDH, these contacts are infrequent and are usually limited to telephone interviews and chart reviews. "I always liked clinical medicine, and I do miss it," she says. "Until I had a child, I was working at an AIDS clinic with Dr. Keith Henry in St. Paul a half day per week. I only gave that up because of time constraints. I do miss hands-on patient care."

Future Issues in Infectious Diseases

Besides the AIDS epidemic, MacDonald says that drug resistant tuberculosis is a growing public health problem that many people have not yet appreciated. Although the problem is not as dramatic in Minnesota as on the East Coast, the potential threat looms. "We've had only a few cases come into Minnesota, but even one case can be a lot of effort and energy. We are developing a task force of state experts to make sure we are proactive in dealing with the problem," she says.

Infectious disease in day-care centers is another ongoing problem that requires close scrutiny because of the increasing number of children cared for in this setting. "We try to make sure children are age-appropriately immunized in day-care centers, but beyond that it is difficult to try and develop effective control efforts."

Looking ahead, MacDonald says she and her husband, a family practitioner, may one day return to working overseas, possibly with WHO. "The Third World needs preventive care: they don't need tertiary care," she says.

Advice to Young Docs

Both Ehlinger and MacDonald offer advice to medical students and practicing physicians considering working in public health. MacDonald cautions that, domestically, there are not a lot of jobs outside the federal government. "However, if you are interested in international health, there are extensive opportunities." She says physicians who work in public health "enjoy a very dynamic career."

Ehlinger agrees, believing that the ultimate rewards for public health physicians are often intangible, though enormously important.

"Although it's not the most financially lucrative practice, serving as an advocate for the public's health can be a very satisfying career," he says. "The real point of public health is to change policy and to make sure that the needs of all people are being addressed." **MM**

Ralph Heussner is a medical writer and study coordinator of the AIDS Clinical Trials Unit at the University of Minnesota. He is also the author of four books.

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A Unifying Force

MMA Finds New Ways to Meet Physicians' Evolving Needs

Suzanne Kasper Glass

Momentous is not too strong a word for the changes facing physicians today, especially those practicing in Minnesota. Health care reform at the state and national levels, reduced professional autonomy, and managed care have and will continue to profoundly affect Minnesota physicians and patients into the foreseeable future. Individual physicians are unlikely to influence health care policy; rather, the unification of physicians' voices is imperative to generate positive public opinion and to influence health care policymakers. That unified voice is the Minnesota Medical Association (MMA).

As the only statewide organization that encompasses all medical specialties, the MMA represents the broader interests shared by all physicians, regardless of practice specialty. "When we speak in multiple voices of specialty groups, we cancel or splinter the effectiveness of our positions in public policy debates," notes A. Stuart Hanson, M.D., MMA president. "It's critical that physicians be represented by an organization that speaks for the whole profession rather than a piece of it. The more agreement we have within the profession, the more successful we'll be in the public forum."

Through its Interspecialty Council, the MMA provides a mechanism for addressing issues that are important to specialty practice; within this structure, physicians can discuss and resolve differences among specialties to ultimately have greater impact on crucial policymaking and standard-setting at the legislative roundtable.

The association has found that working within the system is imperative for shaping decisions that have far-reaching consequences for medical practice in the state. That tactic has served the association well. For example, unlike other physician organizations, the MMA has designated seats on MinnesotaCare committees. The participation of these physicians has enhanced the MMA's standing with legislators and has aided the association's efforts to introduce favorable modifications to this session's health care cost-containment legislation (such as allowing the 2 percent provider surcharge to be passed through to third-party payers and exempting physicians doing volunteer work from the $400 license fee). The efforts of MMA lobbyists are bolstered by three policy analysts in the MMA's new Department of Public Policy and Federal Affairs. The department conducts research for policy development, serves as a liaison to state and federal agencies, and addresses Medicare, Medicaid, and third-party payer issues.

> "Never before has the association made such efforts to find out what the members want."
>
> *–Roger Johnson*

To keep members informed of relevant state health law, the MMA legal staff recently compiled the "MMA Legal Compendium," a reference tool summarizing Minnesota statutes related to medical practice.

Assessing Physician Needs and Implementing Change

As the landscape of medicine shifts, the MMA is assessing members' professional needs and gauging their perceptions of organized medicine. "Clearly our association is only as strong as our ability to meet members' needs," states Paul Sanders, M.D., MMA chief executive officer. "To that end, we've developed a new Department of Member Relations to concentrate on continuing relations with individual physicians and our component medical societies. The new Council of Component Society Officers is one example of this department's thrust."

"Never before has the association made such efforts to find out what the members want," says Roger Johnson, director of Member Relations. "We're willing to respond and change the organization to meet our members' needs."

The vehicle for change is the association's recently developed strategic plan, which assesses the MMA's role as advocate for physicians and their patients. "We wanted to create a method of weaving a set of central ideas or values through future events so that the MMA continues to meet its members' needs in the volatile and fluctuating health care environment," write the plan's authors. The Strategic Planning Committee meets quarterly and reports at least annually to the MMA Board of Trustees on its progress in implementing the strategic plan objectives, including a revised mission statement: "to develop and maintain an environment where physicians can deliver appropriate patient care and promote the public health."

The Strategic Planning Committee has reaffirmed that the MMA's primary responsibility is "to listen closely to its members in as many ways as possible."

"We're analyzing [our membership] and creating an extensive demographic base to aim our program efforts more appropriately," says Sanders. Results of a just-completed benchmark membership survey (see "Taking the Pulse of Minnesota Physicians," page 27) will be compared with future annual surveys exploring member attitudes, demographics, and levels of satisfaction with services and the association in general.

In conjunction with the survey, the MMA last fall tracked members' attitudes, needs, and opinions on health care issues through a series of focus groups conducted throughout the state. Local component society executives, specialty society presidents, and physicians from varying geographic areas participated, as did physician members who aren't active in the MMA's organizational structure, explains Stephen Dombrosk, director of MMA Management Information Services. "It was a process of creative listening to provide yet another avenue of speech for our member physicians."

Additional focus groups concentrated on health care reform, such as the development of integrated service networks and their potential impact on, acceptance by, and feasibility for rural physicians. "We find focus groups an excellent tool for issue identification and a way to stay in touch with the pulse of membership," says Johnson. "Thorough analysis of the [focus group] transcripts allows us to gauge what members want and to formulate policies and programs in response."

The MMA will continue to seek input from members through its expanded field outreach program. The association is now receiving and responding to requests from medical group practices, hospital medical staffs, and specialty societies statewide for presentations by the MMA president, CEO, or staff on such topics as health care reform, legislative and socioeconomic issues, and new MMA programs—a service the MMA has long provided for component medical societies. Question-and-answer sessions follow the presentations, allowing for two-way information exchange.

Also facilitating two-way communication is the association's new 800-DIAL-MMA service, which members can call to receive recorded messages offering updated information on current legislative and other issues. Members may also request specific information, reports, or other materials. To keep members informed of late-breaking developments in state health care reform legislation, a new publication, *MinnesotaCare News*, has been incorporated with the MMA's newsletter, the *Monitor*.

Establishing Peer Review

In response to the growing threat of external regulation of medical practice, the MMA is establishing a peer review program to monitor quality of care issues. "It's very important for the profession to take on the role of peer review," says Hanson. "If others assume this regulatory role, physicians lose control of their own profession."

The MMA's new program will provide a thorough peer-review procedure for MMA member and non-member physicians and will conduct peer review for outside organizations, such as the Board of Medical Practice, county medical societies, hospitals, clinics, physician offices, and the state for its MinnesotaCare program. An underlying objective of the program is to assure the public that the MMA is addressing public complaints and organizational concerns about physicians who do not comply with accepted practice and professional ethics.

Offering Professional and Personal Support

To help small, single and multispecialty groups survive in an increasingly competitive marketplace dominated by large, integrated health care delivery systems, the MMA, with the Hennepin and Ramsey county medical societies, is creating a model for alternative practice structures called "Clinics Without Walls"—networks of affiliated practices in which the participating physicians continue part of their practices outside the network. As proposed, the Clinics Without Walls, owned and controlled by the member practices, will provide a vehicle through which participating practices can undertake joint business ventures and other cost-saving arrangements. Prototype organizational documents, related materials, and information regarding the application of laws relevant to the clinics will be made available to physicians in the coming months.

Direct physician services remain one of the MMA's primary functions. Revitalization of the MMA's Minnesota Physicians Foundation will feature the Physicians Health Program, which is currently under development. The program will offer support to physicians struggling with such health problems as chemical dependency, stress due to professional liability litigation and BMP review, and diseases such as AIDS and hepatitis. The MMA hopes to implement counseling, information, and peer support services by the end of 1993. Additionally, the foundation's Medical Student Financial Assistance Program supports medical students with $140,000 in low-interest student loans each year.

The Minnesota Medical Services Corporation, a for-profit subsidiary of the MMA, offers a variety of high-quality, affordable insurance and business products and services to member physicians and their practices. Professional liability insurance is available to members through the Midwest Medical Insurance Company.

The MMA relies on member involvement on its committees, in its House of Delegates, and in the specialty sections to chart its organizational course through the turbulence engulfing the medical profession. By unifying the voices of individual physicians, the association helps to ensure equitable health care services for patients and a positive professional climate for physicians. MM

Suzanne Kasper Glass is a free-lance writer and editor living in Roseville, Minnesota.

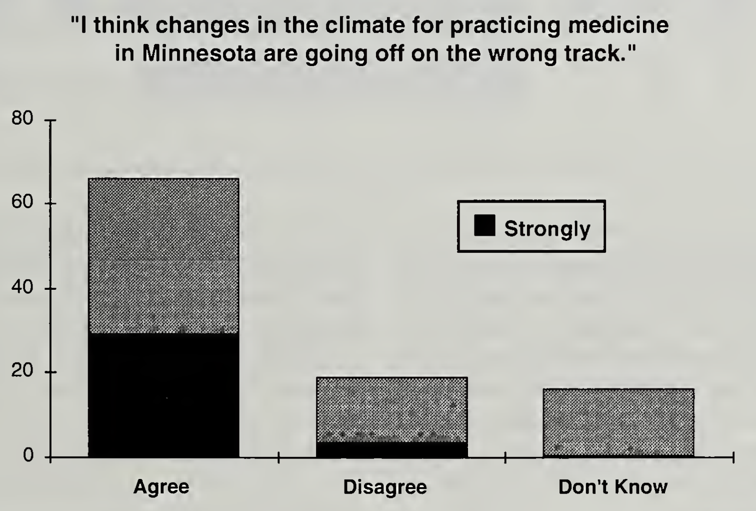
Taking the Pulse of Minnesota Physicians

MMA Survey Results Show Satisfaction yet Room to Improve

Stephen Dombrosk

Like many organizations, the Minnesota Medical Association relies heavily on the volunteer efforts of a small number of its members. During an MMA-sponsored focus group interview in Fergus Falls, one member put it succinctly when he said: "Most physicians don't have the time or the inclination to play an active, day-by-day role in the MMA. Some do, and we're happy to let them." Although the association's less active members are supportive of those who volunteer on committees and fill leadership positions, they certainly expect their views to be taken into account.

Figure 1


"I think changes in the climate for practicing medicine in Minnesota are going off on the wrong track."

MMA members are able to express opinions through the organization's democratic process, and the active volunteers, supported by staff, work to accomplish the goals that are established through this process. Representative governance has served the MMA well in its 140 years of existence. However, today the environment for medical practice is changing at speeds unimaginable just a few years ago. New policy must be developed quickly, and the full MMA membership must be informed, involved, and energized on short notice.

To cope with these new demands, the association has adopted new practices. A year-long process of strategic planning, begun in the summer of 1991, has engendered an ongoing effort to change the association's culture and to make it more responsive to members' needs and more agile in responding to changing circumstances. In addition, this process helps the MMA focus on key services that enable it to accomplish its mission.

The MMA's strategic plan called for "a series of surveys to track members' and other physicians' attitudes, needs, and opinions on health care issues and the MMA, including a benchmark survey to measure current attitudes before implementation of the MMA strategic plan." The MMA conducted its benchmark survey this past winter.

This article summarizes the survey results and highlights material of interest from the MMA database to paint a picture of the Minnesota physician community at the onset of intensive change. The MMA envisions this report as the first in a series of annual profiles based on member surveys and database analyses. Future data will be compared with information gathered in this benchmark study in an effort to measure trends and observe the impact of external changes in the practice environment and internal changes in MMA policies and programs.

The Survey

More than 500 members responded to the MMA membership survey, and dozens more attended focus groups conducted to refine the survey instrument. Confidentiality has been maintained throughout, and no data is reported in such a way as to allow identification of any individual.

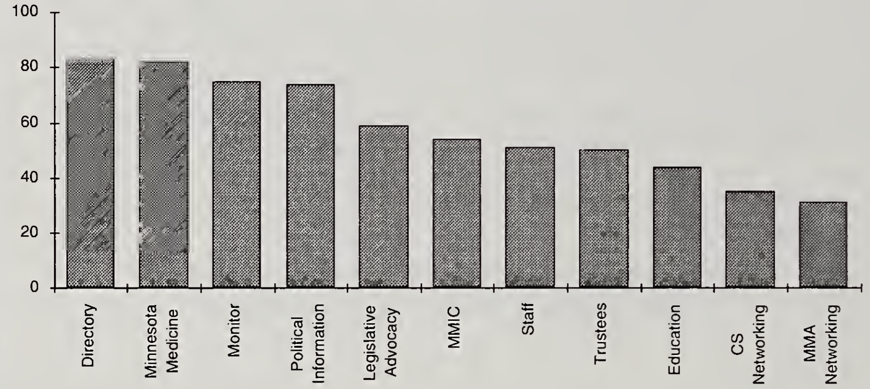
Rating MMA services

National public opinion pollsters rely on several key "benchmark" questions to measure the changing mood of the citizenry. One of the most widely used questions was adapted for this membership survey; members were asked if they agree or disagree that "changes in the climate for practicing medicine in Minnesota are going off on the wrong track." It may come as no surprise to those who followed health care reform during the past year that 66 percent of MMA members agree that changes have been heading in the wrong direction, with 29 percent of members strongly agreeing (see Figure 1).

Although members are concerned about the direction of changes, they applaud the MMA's efforts to keep them updated, with 74 percent expressing satisfaction with the MMA's efforts to provide information on political issues affecting physicians. Thirteen percent expressed dissatisfaction, and 14 percent checked "don't know." In an effort to improve this already high rating, the Strategic Planning Committee identified communications as a high priority area for the coming year. In response, the association now offers such services as the 800-DIAL-MMA hotline to provide continual updates on state health care reform legislation and publishes a special MinnesotaCare supplement in the *Monitor.*

Figure 2

"How satisfied are you with the following aspects of the MMA?" Sum of Very Satisfied & Satisfied



Members gave several other services high ratings. The association's publications received strong votes of support: the annual MMA directory, 83 percent; *Minnesota Medicine*, 82 percent; and the *Monitor*, 75 percent.

Overall, 54 percent of members rated professional liability insurance offered through Midwest Medical Insurance Company satisfactory or very satisfactory. Excluding the 44 percent who said they do not use MMIC or do not have an opinion, MMIC scored an exemplary 96 percent satisfaction rating. Forty-eight percent of members who use MMIC are "very satisfied" with the service.

MMA trustees and staff received votes of confidence from more than 80 percent of those expressing an opinion in the survey, but roughly 40 percent of the respondents were not familiar enough with MMA staff and trustees to express an opinion.

MMA legislative advocacy on behalf of physicians—a critical area—received mixed reviews. Fifty-nine percent of the total respondents expressed satisfaction, the fifth highest percentage for the 11 services ranked. But this service received the highest negative score of the 11, with 24 percent of the responding members expressing dissatisfaction with the MMA's advocacy services. The respondents may in part be dissatisfied with the legislative process as opposed to the MMA's efforts, but a large percentage of members are nonetheless dissatisfied. The MMA's ability to represent physician interests in the legislative process is critical to the membership and an area in which both expectations and stakes are high.

Member respondents gave lower satisfaction ratings to the MMA's networking activities at state and county medical society events and to the MMA's educational programs. The satisfaction ratings are shown in Figure 2.

Ranking the value of MMA initiatives

Five specific MMA programs were included in the survey to determine their value to members. At least three-fourths of the respondents deemed all the programs either somewhat or very valuable. Members gave the highest score to the importance of "representing physicians' interests within organizations that collect data and develop practice parameters," with 86 percent giving it a valuable rating and 48 percent rating it "very valuable."

Next in line was "improving relations with the Board of Medical Practice," with 84 percent calling this a valuable direction for the MMA. At a close third (83 percent) was "pursuing legislation to allow Minnesota physicians to collectively bargain with health plans and other payers."

Eighty-one percent of the responding membership endorse the MMA's special public health initiative to educate physicians and the public on family violence, abuse, and neglect. While both men and women physicians endorsed the program in equal numbers, women members were twice as likely to consider the program very valuable.

Although the MMA's peer review program has not yet been established, 79 percent of member respondents consider it a valuable service. New initiatives being planned to aid MMA members with such health problems as chemical dependency, stress from BMP review, and AIDS, were considered valuable by 75 percent of respondents. The survey results for these five programs are shown in Figure 3.

Determining success in meeting members' needs

Minnesota physicians practice in many different settings and in more than 100 different medical specialties. In order to provide greater unity in the face of increasing external pressures, the MMA must function as an umbrella organization for physicians with varying interests and backgrounds.

Several questions in the survey analyze the MMA's success in meeting the needs of members from different regions and specialties.

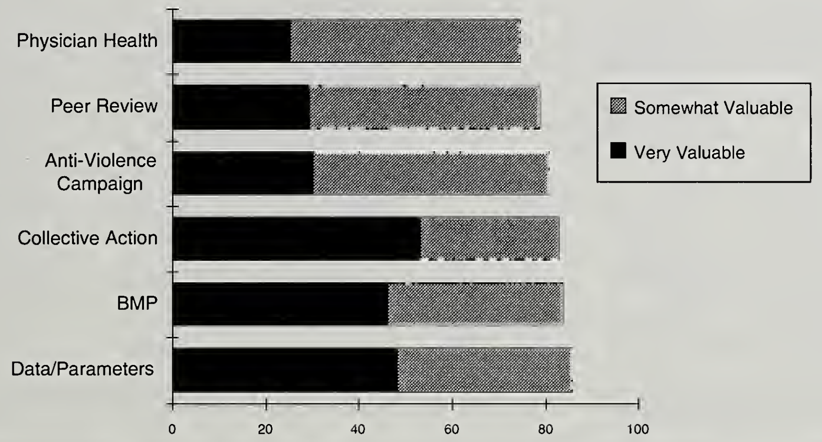
In response to the question, "When you think about MMA programs and services, please indicate who you feel is most comprehensively served, urban physicians, rural physicians, or both equally," a majority (52 percent) said they feel the MMA serves both groups equally. Thirty-seven percent believe the MMA better serves urban physicians, while 11 percent believe the organization more comprehensively serves rural physicians.

As could be expected, the respondents' views varied according to where they live and practice. In the seven-county metro area, 61 percent of the members believe the MMA serves all regions of the state equally, 26 percent believe the organization better serves urban physicians, and 13 percent believe the MMA favors rural physicians. Similar results were obtained in Olmsted County, with 58 percent believing urban and rural physicians are served equally, 31 percent perceiving better service to urban physicians, and 11 percent perceiving bias for rural members.

Members in the remaining 79 counties have different perceptions: Only 30 percent believe the MMA serves both urban and rural physicians equally, and fully 65 percent believe the organization favors urban members. Only 5 percent believe the MMA better serves rural physicians.

Figure 3

Perceived Value of MMA Initiatives



A similar question was asked to measure perceptions of bias on the basis of specialty, particularly primary care as opposed to other practice specialties. Thirty-eight percent of respondents said they view the MMA as serving these two groups equally, while 46 percent believe more comprehensive services are aimed at primary care physicians. Fifteen percent believe physicians in other specialties are better served.

Respondents' perceptions varied according to practice specialty. Fifty-nine percent of respondents in specialties outside primary care perceive the MMA as better serving its primary care members, whereas only 29 percent of primary care respondents agreed with this assertion. The proportion of respondents who believe primary care physicians and specialists receive equal service was closer—42 percent for primary care physicians and 36 percent for physicians in other specialties.

Database Profile

Because the survey was directed only at MMA members, it reports only on those Minnesota physicians who have joined the association. To expand our picture of medical practice in the state, an analysis of the MMA database—the premier source of information on the medical profession in Minnesota—was conducted to generate a "snapshot" of physicians in 1993.

In developing this snapshot, the statistical universe was defined as all physicians maintaining office addresses in Minnesota. This yielded a total of 8,893 individuals. Many MMA members are not included in this total, such as retired members who no longer maintain an office, student members who have not yet established an office, and physicians who have moved out of Minnesota but retain their MMA membership.

Despite these limitations, a study of the remaining 8,893 physicians is of value to view the distribution and characteristics of Minnesota physicians regardless of their MMA membership status.

The database shows that 58 percent of the 8,893 physicians practice in the seven-county metro area, another 21 percent practice in Olmsted County, and 21 percent practice in other portions of the state. Table 1 shows the complete distribution of physicians for Minnesota's 87 counties.

An analysis based on practice specialty reveals that family practice is the most common specialty in Minnesota, with 20 percent of physicians describing themselves as family physicians. Internal medicine ranks second at 15 percent, followed by pediatrics at 6 percent, and general surgery at 5 percent. In analyzing these numbers, it's important to note that physicians may declare practice in more than one specialty. These figures represent the specialty the physicians have designated as their "primary" specialty. Table 2 shows the complete distribution of physicians by specialty.

One of the most rapidly changing demographic characteristics of Minnesota physicians is gender. Currently, the Minnesota physician population is 81 percent men and 19 percent women. Because most medical school classes are at or near gender equality, this imbalance is certain to diminish in the future

Another changing aspect in Minnesota's health care environment is the growing size of practices with which physicians are affiliating. In addition, a growing number of group practices have joined networks to form even larger operations. Without analyzing which practice locations might be affiliates of larger organizations, we find that 34 percent of Minnesota physicians practice in a setting shared with 100 or more physicians. At the other end of the scale, 7 percent work in a solo environment.

Conclusion

Minnesota physicians are far from homogeneous. Fully describing the many practice styles, attitudes, and opinions of all would require several volumes. This article highlights those elements that may be of interest to

Table 1

Distribution of physicians by county

Aitkin	7
Anoka	244
Becker	25
Beltrami	39
Benton	4
Big Stone	7
Blue Earth	97
Brown	30
Carlton	23
Carver	50
Cass	10
Chippewa	8
Chisago	24
Clay	18
Clearwater	5
Cook	3
Cottonwood	7
Crow Wing	62
Dakota	110
Dodge	3
Douglas	39
Faribault	10
Fillmore	11
Freeborn	34
Goodhue	36
Grant	4
Hennepin	3523
Houston	6
Hubbard	8
Isanti	31
Itasca	38
Jackson	6
Kanabec	8
Kandiyohi	73
Kittson	5
Koochiching	13
Lac Qui Parle	2
Lake	8
Lake of the Woods	2
Le Sueur	11
Lincoln	4
Lyon	22
Mahnomen	1
Marshall	2
Martin	22
McLeod	27
Meeker	9
Mille Lacs	18
Morrison	24
Mower	39
Murray	3
Nicollet	21
Nobles	19
Norman	4
Olmsted	1823
Otter Tail	50
Pennington	13
Pine	5
Pipestone	2
Polk	17
Pope	6
Ramsey	1109
Red Lake	3
Redwood	8
Renville	6
Rice	45
Rock	10
Roseau	12
Scott	37
Sherburne	12
Sibley	3
St. Louis	391
Stearns	209
Steele	31
Stevens	8
Swift	4
Todd	10
Traverse	3
Wabasha	12
Wadena	9
Waseca	7
Washington	82
Watonwan	5
Wilkin	2
Winona	43
Wright	39
Yellow Medicine	7

Table 2

Distribution of physicians by specialty

Adolescent Medicine	3
Aerospace Medicine	2
Allergy	20
Allergy and Immunology	22
Anatomic Pathology	5
Anesthesiology	391
Blood Banking Pathology	6
Cardiology	52
Cardiovascular Diseases	143
Cardiovascular Surgery	30
Child Neurology	18
Child Psychiatry	35
Clinical Pathology	24
Clinical Pharmacology	2
Colon & Rectal Surgery	25
Critical Care Medicine	13
Dermatology	112
Dermatopathology	2
Diabetes	3
Diagnostic Radiology	232
Emergency Medicine	141
Endocrinology	49
Facial Plastic Surgery-Otolaryngology	3
Family Practice	1782
Forensic Pathology	1
Gastroenterology	106
General Practice	53
General Preventive Medicine	5
General Surgery	419
Geriatric Internal Medicine	12
Geriatric Medicine/Family Practice	1
Gynecologic Oncology	7
Gynecologic Surgery	3
Gynecology	10
Hand Plastic Surgery	1
Hand/Orthopedic Surgery	13
Hematologic Oncology	12
Hematology	33
Hematology Pathology	1
Immunology	3
Infectious Diseases	38
Internal Medicine	1322
Maternal and Fetal Medicine	5
Medical Genetics	1
Medical Oncology	49
Neonatal-Perinatal Medicine	15
Nephrology	61
Neurological Surgery	68
Neurology	244
Neurology/Pediatric Surgery	1
Neuropathology/Pathology	4
Nuclear Medicine	7
Ob/gyn	380
Occupational Medicine	46
Ophthalmology	266
Orthopedic Surgery	367
Other (Physician Designated)	89
Otolaryngology	131
Pathology-Anatomic/Clinical	205
Pediatric Allergy	2
Pediatric Cardiology	21
Pediatric Endocrinology	4
Pediatric Hematology/Oncology	7
Pediatric Nephrology	2
Pediatric Pulmonology	1
Pediatric Radiology	4
Pediatric Surgery	8
Pediatrics	571
Physical Medicine and Rehabilitation	107
Plastic Surgery	57
Psychiatry	404
Public Health	4
Pulmonary Disease	47
Radiation Oncology	51
Radiology	132
Reproductive Endocrinology	6
Research	13
Rheumatology	51
Surgical Pathology	5
Thoracic Diseases	12
Thoracic Surgery	30
Transplantation Surgery	1
Unspecified Specialty	1
Urology/Urological Surgery	150
Vascular Surgery	9

MMA members and the public.

The MMA has conducted special purpose surveys and focus groups in the past, but this project is the benchmark for a systematic trend analysis that will be repeated in coming years. Through this research, the association will track the needs of Minnesota physicians, design programs to meet those needs, and evaluate the success of its efforts.

A final note of thanks is due to those members who participated in the various phases of this project. Without the exceptional willingness of these busy individuals to participate, we would not have obtained such high-quality results. Just as the MMA itself depends on the voluntary support of Minnesota physicians, residents, and medical students, so does an opinion research effort. If you participated in this survey, thank you. And for those physicians who receive an MMA membership survey in future years, please consider joining those who made this benchmark effort a success by participating.

In the MMA, every member's voice is important. MM

Stephen Dombrosk is director of MMA Management Information Services.

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Food Safety for the 1990s

Craig W. Hedberg, Ph.D., M.S., and Michael T. Osterholm, Ph.D., M.P.H.

ABSTRACT

The epidemiology of foodborne disease has evolved as a result of changes in the types and sources of food consumed, new methods of food production, the emergence of new infectious agents, and new trends involving known infectious agents. The results of foodborne disease surveillance at the Minnesota Department of Health demonstrate the importance of these factors and suggest that foodborne disease problems are actually much more widespread than previously acknowledged. The public health agenda for the 1990s must include a comprehensive review of food safety.

The recent outbreak of bloody diarrhea and hemolytic uremic syndrome (HUS) caused by *Escherichia coli* O157:H7 served in undercooked hamburgers at a chain of fast-food restaurants in the Western United States has again raised concerns about food safety to national prominence. *E. coli* O157:H7 is an emerging foodborne pathogen of great public health importance, both with respect to its presence in the food supply and its ability to spread from person-to-person in child-care settings. The Minnesota Department of Health (MDH) has conducted surveillance for *E. coli* O157:H7 infection since 1988. Since then, we have documented a large foodborne outbreak of bloody diarrhea due to consumption of precooked hamburgers and have conducted extensive investigations of *E. coli* O157:H7 transmission in child-care settings.[1,2] A population-based review of hospital medical records demonstrated a fourfold increase in HUS incidence in Minnesota children under 5 from 1979 through 1988, primarily due to *E. coli* O157:H7 infection.[3]

Our experiences with *E. coli* O157:H7 in Minnesota serve as a guide to other public health agencies around the country. However, the outbreak of *E. coli* O157:H7 is only one of many important food safety issues we face in the 1990s. The risk of foodborne disease depends on the type of food consumed, the production source, handling methods, and the consumer's resistance to the infectious agent. As the relationship between these factors changes, so does the epidemiology of foodborne disease. In the 1990s several factors have contributed to the shifting epidemiology of foodborne disease, including changes in the type and source of food consumed, new methods of food production, the emergence of new infectious agents, and new trends involving known infectious agents. The results of foodborne disease surveillance at MDH demonstrate the importance of these factors. The fact that these outbreaks were recognized in Minnesota, a state with only 2% of the U.S. population, suggests that foodborne disease problems are actually much more widespread.

Changes in the Type and Source of Foods Consumed

The relationship between cardiovascular disease and diet has led many Americans to abandon the traditional meat-and-potatoes diet that accompanied the post-war boom of the 1950s.[4-6] The new American diet emphasizes fruits, vegetables, and grains and de-emphasizes meats and foods with high fat content.[7] The concept of a diet balanced between the "four basic food groups" has been replaced by a diet built on a "food pyramid."[8] For example, from 1970 to 1989, the per-capita consumption of whole milk in the United States declined 57%, from 219 to 95 pounds annually, and red meat consumption declined 16%, from 132 to 111 pounds. At the same time, the per-capita consumption of lowfat milk increased 147% (50 to 123 pounds), cheese increased 108% (11 to 24 pounds), poultry increased 77% (34 to 61 pounds), fresh vegetables increased 40% (71 to 99 pounds), and fresh fruits increased 22% (79 to 97 pounds).[9]

These dietary changes coincide with dramatic increases in product availability. During the 1950s, the average U.S. grocery store stocked 300 food items on its shelves. By the

1990s, that had increased 80-fold to 25,000 different food items.[10] Currently, many grocery stores stock more than 50,000 different food items, including as many as 200 varieties of fresh fruits and vegetables, exotic seafoods, grains, and food supplements.

The increased demand for fresh fruits and vegetables has led to widespread availability of salad bars in restaurants. By 1988, 71% of fast-food and family restaurants offered entrée salads or salad bars.[11] Produce is imported from Mexico, Central America, and other tropical areas to meet the increased demand. Seasonally, more than 75% of fresh fruits and vegetables are harvested outside the United States and delivered within days to grocery stores and restaurants.[12]

Two large multistate outbreaks of *Salmonella* infection involving Minnesota residents demonstrate the emerging potential for foodborne disease associated with fresh fruits and vegetables. The outbreaks were recognized only because they were caused by uncommon *Salmonella* serovars. From June to August 1990, 84 outbreak-associated cases of *S. javiana* infection were identified in Minnesota. The Michigan Department of Health first recognized this outbreak. Results of epidemiologic investigations implicated tomatoes shipped from a South Carolina supplier as the source of the outbreak.

During June and July 1991, MDH identified 24 cases of *S. poona* in Minnesota. After MDH recognized this outbreak, cases of *S. poona* infection were reported from 23 states and Canada. Results of epidemiologic investigations implicated cantaloupes shipped from the lower Rio Grande area of Texas.

In both of these outbreaks, many more cases likely occurred than were detected. In addition, because tracing the source of the implicated produce proved difficult, the method of contamination was not determined, and measures could not be taken to prevent the recurrence of similar outbreaks. Thoroughly cleaning the surface of all fruits and vegetables before they are handled and consumed is a prudent recommendation; however, the potential efficacy of this step is unknown.

Important epidemiologic features of these outbreaks include the absence of recognized case-clusters associated with households or food service establishments, the widespread geographic distribution of outbreak associated cases, and the apparent sporadic or low-level contamination of implicated food items. Only the temporal clustering of these unusual *Salmonella* serovars made it possible to detect the outbreaks. Similar outbreaks are likely to occur more frequently in the future given national trends toward more fresh fruit and vegetable consumption.

New Methods of Food Production

The occurrence of foodborne illness outbreaks associated with sporadic or low-level contamination of fresh fruits and vegetables suggests that other "mass-produced" cold food products also could potentially serve as vehicles for transmitting foodborne disease. In 1989, contaminated mozzarella cheese and other shredded cheeses led to an outbreak of *S. javiana* and *S. oranienburg*.[13] As with the fruit- and vegetable-associated salmonellosis outbreaks, this multistate outbreak was identified only because of an increased incidence of infection with an unusual serovar. Eventually, MDH confirmed 136 outbreak-associated *S. javiana* and 11 *S. oranienburg* infections in Minnesota. Again, it is likely that more than 3,000 cases actually occurred associated with cheese consumption.

Epidemiologic investigations implicated mozzarella cheese manufactured at a single cheese plant in Wisconsin and shredded cheese from four plants that shredded cheese from the Wisconsin plant. The Food and Drug Administration and the Minnesota Department of Agriculture were unable to isolate *S. javiana* or *S. oranienburg* from approximately 490 cheese samples produced at the plant during the time of likely contamination. However, the Health Protection Branch, Health and Welfare Canada (Ottawa, Ontario), isolated outbreak-associated strains of both serovars from two of 68 unopened packages of mozzarella cheese blocks produced at the plant. The most probable number of *Salmonella* organisms in the two samples was 4.3 and 0.36 per 100 grams, respectively. The sporadic nature of contamination suggests that post-manufacture cheese contamination is a potential hazard that needs further examination. This has important epidemiologic implications considering that U.S. cheese consumption doubled from 1970 to 1989.

Consumer demand for commercial food service establishments increased dramatically over the past two decades. From 1973 to 1989, the number of table-service restaurants in the United States increased from 112,000 to 161,000.[14] In addition, the number of fast-food restaurants doubled from 73,000 in 1972 to more than 146,000 in 1989. Coupled with increased fresh fruit and vegetable consumption, the growing number of restaurants has led to ever-greater consumption of cold items prepared by hand in commercial kitchens.

Typically, food service wages are low, and benefits and advancement opportunities are lacking. In most situations, food service workers receive no benefit package, no insurance, no sick leave, and no paid vacation. These work conditions lead to labor shortages and high turnover rates.[15] Forty-two percent of all food service employees in 1990 had been with their current employer for less than one year. As a result, it is difficult to provide on-the-job training regarding hygiene and sanitation to reduce the risk of foodborne disease transmission.

Recent outbreaks of foodborne disease identified by MDH in Minnesota demonstrate the importance of hygiene when handling food. These outbreaks include Norwalk virus gastroenteritis associated with frosted bakery products, salmonellosis associated with a fast-food restaurant, and shigellosis associated with cold foods served on a commercial airline.[16-18] This last outbreak was notable in part because MDH identified confirmed or probable shigellosis among 240 passengers on 219 flights to 24 states, the District of Columbia, and four countries over one month. However, the outbreak was recognized only because members of a professional football team were infected.

Because the consumer appears to have become "the ultimate bioassay" for low-level sporadic contamination of our food supply, public health surveillance of foodborne disease due to this type of contamination in mass-produced or mass-distributed food products is both challenging and vital. Contaminated food products with an infectious dose (ID) 0.01 have assumed as much public health importance today as those with an ID 50 of yesteryear.

Public health surveillance for foodborne disease begins with the interaction between ill consumers and their clinicians. Clinicians acting on their suspicions, collecting appropriate stool samples for culture, and notifying local or state health departments are all necessary to the success of any surveillance system for foodborne disease. In addition, the public health infrastructure must be capable of responding to these reports, by providing both the laboratory resources to confirm the agent and the epidemiologic resources to investigate the potential outbreak, no matter how small or localized it may seem. As demonstrated by the airline-associated shigellosis, investigating a small outbreak may be the key to identifying a much larger outbreak.

Nationally, the number of foodborne outbreaks reported to the Centers for Disease Control and Prevention peaked in 1982 and declined through 1987.[19] This decrease is most likely due to the increased burden AIDS has placed on finite public health resources, not to an actual decrease in the incidence of foodborne disease nationwide.

Emergence of New Infectious Agents

Recent outbreaks of *E. coli* O157:H7 in the Western United States demonstrate the need to maintain and enhance the public health infrastructure for surveillance. Other compelling evidence of this need include the emergence of eggs as a significant source of *S. enteritidis* infection and the occurrence of three novel foodborne disease outbreaks that were not initially suspected because the clinical presentations were not typical of foodborne disease.[20-22] These outbreaks were Brainerd diarrhea associated with raw milk consumption, thyrotoxicosis due to consumption of bovine thyroid in ground beef, and eosinophilia myalgia syndrome associated with food supplements containing L-tryptophan. Because many other diseases could be foodborne but not recognized as such, general disease surveillance and outbreak investigations are critical to identifying disease sources.

The public health agenda for the 1990s must include a comprehensive review of food safety. We must strive to prevent foodborne diseases through new regulatory and public health programs tailored to the unique aspects of food production, processing, and distribution in the 1990s. We in public health must accept, as part of any basic public health program, responsibility for disease surveillance and pursue the necessary resources for rapid investigation of potential outbreaks. Last, we must recognize that the final control in any food safety system is the consumer. If individuals choose to put themselves at risk for foodborne disease by eating undercooked eggs or hamburger or by drinking raw milk, we in the public health community should at least strive to make such choices informed choices. **MM**

Craig Hedberg is an epidemiologist and Michael Osterholm is state epidemiologist and chief, Acute Disease Epidemiology Section, Minnesota Department of Health.

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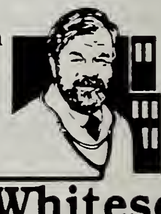

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The Price of Profitability

Economic Credentialing Can Threaten Health Care Quality

Elizabeth A. Snelson, J.D.

As economic concerns continue to drive health care reform, increasingly, the health care community finds it necessary to discuss the practice of economic credentialing in granting or denying membership and clinical privileges to hospital medical staffs. In 1991, the Minnesota Medical Association adopted a policy to oppose the practice of economic credentialing. Since then, the state and federal governments, the public, and the business community have become more conscious of health care costs and have forced change in the health care delivery system. In Minnesota, the changes are coming under the rubric of MinnesotaCare legislation as passed last year and currently being revised. Nationally, the Clinton administration's health care task force has promised changes in health care delivery and reimbursement.

In the midst of this changing health care environment, physicians should be aware of the many characteristics and legal ramifications of economic credentialing.

Credentialing Defined

Economic credentialing, as defined by the American Medical Association, is "the use of economic criteria unrelated to the quality of care or professional competency in determining an individual's qualifications for initial or continuing hospital medical staff membership or privileges." Organized medicine is concerned that for-profit or financially strapped hospitals will strip physicians of staff privileges based on the profitability of the physicians' practices. In effect, these hospitals would be denying patients access to care because their illnesses do not generate sufficient income.

Hospitals are able to analyze the economic ramifications of physicians' practices through information gathered from billing, medical records, and utilization review departments. For the most part, the raw data are gathered simply to satisfy operational needs and complicated reimbursement mechanisms that various payers require. However, increasingly sophisticated computer programs can process data gathered for other purposes and generate reports showing a particular physician's average profit per admission broken down by diagnosis codes and insurance or entitlement plans.

> "Some data have no legitimate relationship to the quality of patient care and should not be factored into the medical staff credentialing process."

Usually, it is not the act of gathering data, but the purpose for which the data are collected that comes into question. Some data have no legitimate relationship to the quality of patient care and should not be factored into the medical staff credentialing process. Strict profit analysis is not an appropriate basis for determining clinical privileges. A physician's practice may be high-quality but in a clinical area that is not appropriately reimbursed or that serves an uninsured, low-income population. Locking these physicians and their patients out of the hospital threatens public health and medical professionalism.

However, the relationship between profit and quality of care is not consistently divergent. A practice that loses money may be a loser in quality of treatment, as well. Since some information gathered to satisfy the demands of a third-party payer or a peer review organization may contribute to the medical staff's self evaluation, the medical staff cannot afford to routinely disregard data generated by non-clinical departments. Medical staffs would be prudent to determine what information can be gleaned from administrative information systems for meaningful integration into quality improvement studies.

To prevent the use of inappropriate data, medical staffs can establish guidelines as to what available data should or should not be used in credentialing. A study conducted by the Task Force on Exclusive Contracting and Economic Credentialing of the California Medical Association in 1990 provides a framework for such guidelines. The task force reviewed economic credentialing criteria culled from a variety of software packages and classified them as either valid criteria (see Table 1) or invalid criteria (see Table 2).

Credentialing Manifested

Unfortunately, some hospitals continue to inappropriately use economic data in medical staff credentialing. Most hospital information systems can provide the raw data needed, and software packages augment the hospitals' ability to process and compare profitability data.

The medical staff—the very organizational structure that should strive to prevent economic credentialing—often inadvertently aids and abets its practice. This can occur in many ways. Applications for medical staff membership or renewal may request information from individual practitioners regarding the raw percentage of their practice that will be committed to the particular hospital, as well as other loyalty/market-share data. Many medical staff bylaws include among the qualifications for membership such specific factors as "admission rates" and such general factors as "fulfillment of hospital strategic goals," which could include market-share considerations. Medical staff committees, such as departmental, credentialing, utilization review, and executive committees, sometimes allow economic data to be introduced into their deliberations on medical staff membership, clinical privilege delineation, and denials. Some medical staffs participate in or allow the hospital to establish medical staff development plans that are designed to improve the bottom line, disregarding quality improvement and community service.

Medical staffs should review their bylaws, rules and regulations, and organizational structures to ensure that the medical staff fulfills its responsibilities to improve quality without permitting its structure and activities to be manipulated for profit.

Legal Ramifications

In addition to the problems of quality improvement, public health, and professionalism associated with economic credentialing, concrete legal conflicts can arise. Peer review activity conducted fairly for quality improvement reasons stands to win protection under federal law against antitrust and other challenges filed by an affected practitioner. However, peer review actions taken for economic reasons will not qualify for federal protection, leaving physicians who use economic data in peer review decisions exposed to antitrust and other liability.

Table 1

Valid Criteria for Economic Credentialing

Examples of economic criteria that have validity for quality assurance purposes:

- Length of stay
- Number of ICU days
- Excessive and redundant testing
- Clinically unnecessary treatment
- Fraud and abuse
- Sanctions by any government authority as pertains to patient care
- Excessive number of denial letters
- Health status
- Office proximity
- Disruption of hospital operations as pertains to patient care
- Improper use of hospital resources, as pertains to patient care

Examples of economic data that may have quality ramifications depending upon the clinical context:

- Comparison of resources used (variation studies)
- Number of tests ordered
- Number of consultants/referrals
- Number of hospital admissions vis-à-vis outpatient services utilization
- Comparative profiles of physician outcomes and resource utilization within the same DRG category
- DRG outliers

Is It Really Happening?

The legal issues are important in light of a recent study on the frequency of economic credentialing. Professor John Blum of the Institute for Health Law at Loyola University of Chicago conducted a survey of nearly 2,000 chiefs of staff of community hospitals. His initial findings, presented in November 1992, show that use of economic criteria in credentialing is common. He found that 43 percent of respondents consider physicians' admission-generating potential when hiring medical staff, and 26.5 percent consider patient charges per admission or per DRG when recredentialing physicians.

Health Care Reform and Credentialing

In Minnesota, proposals for new health care delivery systems—emerging as a result of health care reform—include use of economic credentialing as a basic feature. Health care reformers are attempting to institutionalize managed care or managed competition using integrated service networks, and legislation passed this session encourages the development of new medical practice delivery systems such as Clinics Without Walls.* Credentialing for these health care systems involves different procedures and different purposes than credentialing for hospital medical staffs. The Minnesota Medical Association's opposition to economic credentialing is limited to the hospital medical staff credentialing process. Although the MMA supported this year's state health care reform legislation and the concept of integrated service networks, specific policies are yet to be developed for credentialing that will

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*The Minnesota Medical Association, in collaboration with the Hennepin and Ramsey county medical societies, is creating a model for alternative practice structures called "Clinics Without Walls" to help small practices survive in an increasingly competitive marketplace. For a detailed description, see "Clinics Without Walls: Alternative Practice Structures for Physicians in Independent Practice," in the February 1993 *Minnesota Medicine.*

Table 2

Invalid Criteria for Economic Credentialing

Examples of criteria that do not apply to quality:

- Personal referral patterns
- Age as a medical staff development criterion as opposed to a health status criterion
- Patient demographics
- Resource utilization in dollars
- Concurrent DRG review
- Reimbursement based on ICD-9 or CPU-4 code
- Comparison with "alternative" DRGs
- Physician DRG profiling comparing profitable DRG categories to non-profitable DRG categories
- Physician profit by reimbursement
- Physician profit by cost
- Revenue per physician
- Charges comparison
- Medicaid participation status
- Medicare participation status
- HMO/PPO/IPA contracting status
- Payer mix
- Commercial payer profiles
- Malpractice risk exposure
- Market need for particular type of physician
- Allocation of hospital resources
- Admission rates
- Number of hospital-owned outpatient services utilized
- Medical staff development plans
- Operating room underutilization
- Low census
- Hospital-owned ambulatory facility underutilization
- Use of facilities in order to maximize current, projected, or desired hospital market share
- Community need for services
- Hospital fiscal viability
- Facility equipment maintenance
- Comparative utilization of inpatient services
- Promised utilization of hospital outpatient services

be conducted as a result of this new concept. In the meantime, the Clinics Without Walls model encourages the use of selective criteria including both cost and quality information to determine eligibility of physician members.

The same legal concerns that apply to traditional medical staffs also apply to these new entities. Federal law does not currently protect credentialing for economic purposes, and state laws cannot provide protection from antitrust and other challenges based on federal law. State law simply does not provide ironclad protections for provider-organized entities. The extent to which new state law may protect physicians and their organizations has not yet been determined, much less tested. **MM**

Elizabeth A. Snelson practices law in St. Paul, representing medical staffs, medical societies, and physician interests in Minnesota and across the country.

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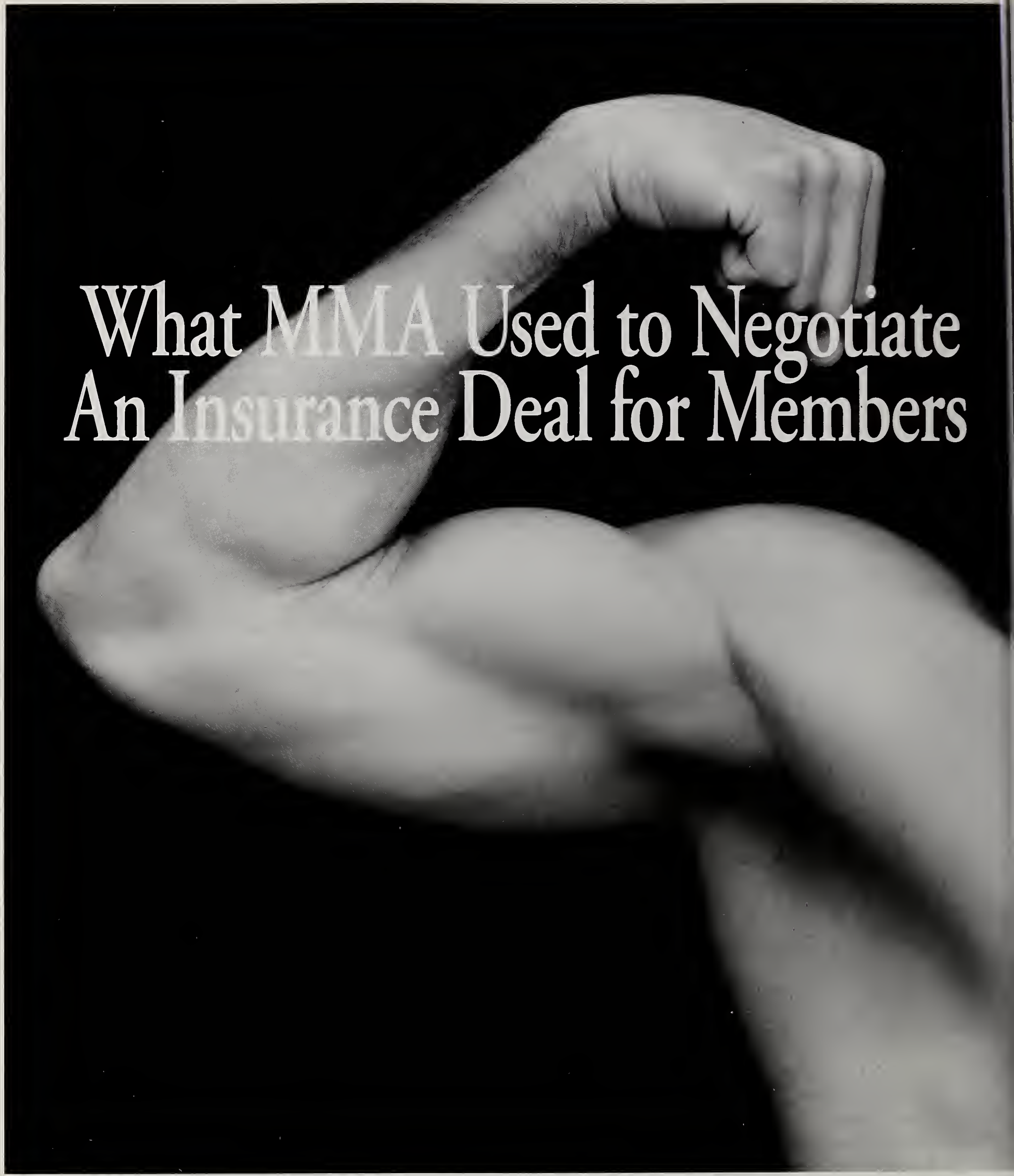
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Careful Planning Will Avoid Tax Surprises

Clinton Proposals May Target You

Arthur J. Sauter and Daniel J. Thibault

Nearly all taxpayers, especially professionals with high incomes, will be affected in one way or another by new tax legislation that is currently working its way through Congress. President Clinton announced his comprehensive set of tax and spending proposals in February. Seven weeks later, Congress completed action on the budget resolution for fiscal year 1994. Since that time, the House and Senate have been working out the details of raising $246 billion in net revenues over the next five years. The revenues Congress intends to raise through tax increases match the amount the president proposed.

These targeted revenue increases will be derived from increased individual and corporate income tax rates, a broad-based energy tax, increased wages subject to the health insurance payroll tax, increased portions of Social Security benefits subject to tax, and reduced allowable meal and entertainment expenses. Most of the tax increases will take effect January 1993.

Individual Income Tax Increases

Many of President Clinton's tax increases come from higher individual income taxes.

Individual income tax rates: Effective for 1993, Clinton's proposal increases the top individual tax rate by adding two tax brackets above the current top rate of 31 percent: 36 percent and 39.6 percent. The 36 percent tax bracket applies to taxable incomes above $140,000 for married individuals filing joint returns and $115,000 for individuals filing single returns.

The new top bracket, 39.6 percent, applies to taxable incomes above $250,000, regardless of filing status. However, for married taxpayers filing separately, this bracket applies to taxable incomes above $125,000.

> "Nearly all taxpayers, especially professionals with high incomes, will be affected by new tax legislation currently working its way through Congress."

The tax brackets, including the two new rates, will continue to be indexed for inflation. The president and the Treasury Department have characterized the top rate of 39.6 percent as a 10 percent surtax. Presumably, this allows them to describe the tax system as having a 36 percent top rate.

Capital gains, estates, and trusts: The new tax brackets do not apply to net taxable capital gains. Instead, net capital gains are subject to an alternative top tax rate of 28 percent. Thus, the 31 percent, 36 percent, and 39.6 percent tax brackets are applied to taxable income excluding net capital gains, then a 28 percent tax on the net capital gains is added to the result. Since capital gains have a significant tax rate advantage, tax planning has become an important tool in reducing taxes for individuals with high incomes.

The new higher rates also would apply to income tax on trust and estate income.

Alternative minimum tax: Also starting in 1993, Clinton's proposal would increase the alternative minimum tax (AMT) rate for all individual taxpayers from the current 24 percent on alternative minimum taxable income (AMTI) to 26 percent for AMTI up to $175,000. For AMTI above $175,000, the rate is 28 percent.

AMT exemptions will increase from $40,000 to $45,000 (joint) and from $30,000 to $33,750 (single).

Additional hidden rates: Currently, taxpayers with adjusted gross income (AGI) in excess of $108,450 (for 1993) must reduce their itemized deductions by 3 percent of the amount by which their AGI exceeds the threshold. Also, personal exemptions will be phased out for high-income taxpayers whose AGI exceeds $162,700 (joint) and $108,450 (single) at 1993 levels. Under the proposal, these provisions—which are due to expire in 1996 and 1997, respectively—would be permanently extended.

These two features can result in effective marginal tax rates well in excess of the proposed top rates of 36 percent and 39.6 percent. For example, a taxpayer in the 36 percent bracket with four exemptions subject to the phase-out would experience an effective marginal rate of 39.78 percent (36 percent base rate, plus 1.08 percent from the 3 percent reduction, plus 2.7 percent from loss of personal exemptions). For a person in the 39.6 percent tax bracket, the 3 percent reduction in itemized deductions alone would create an effective top marginal rate of 40.79 percent.

Effective date

The new tax rates would be retroactive to January 1, 1993. However, if Congress follows legislative history, the effective date may be delayed. Of course, the government would lose money if the increases are delayed—$8 billion in fiscal year 1994 if postponed until July 1, 1993.

The tax bill currently has a provision that increases to 100 percent the "safe harbor" for estimated tax payments for people with incomes under $150,000. This means that to avoid penalties for underpayment of tax these people will have to pay at least as much as their prior-year liability. For those with incomes above $150,000, the safe harbor will be 110 percent of last year's liability.

It is not known if the withholding tables for 1993 will be revised. However, some relief will likely be provided for underpayment of 1993 taxes as a result of changes in the law.

Broad-based Taxes

The president's proposal will squeeze additional revenue from other sources, as well.

Hospital insurance tax cap: The president proposes a repeal of the hospital insurance (HI) wage base cap, currently $135,000. This provision would raise $29.2 billion through 1998. If enacted, employees' wages would be subject to a 1.45 percent HI tax, and self-employed individuals' incomes would be subject to a 2.9 percent HI tax. Half the latter tax is deductible in computing self-employed individuals' taxable incomes.

Because it is imposed on gross income from employment, the hospital insurance tax—part of the Social Security payroll tax—will be difficult to mitigate through planning. The tax is only imposed upon employment-based earnings, though, creating a bias in favor of investment income. Since the earnings subject to this tax will be unlimited, compensation planning will, for the first time, place significant emphasis on the effects of this tax. This provision would be effective January 1, 1994.

Energy and gasoline taxes: The proposal includes a new tax on energy use measured by British thermal units. The Btu tax will affect all consumers regardless of income level.

The temporary gasoline tax of 2.5 cents per gallon was originally scheduled to expire after September 30, 1995, but now would be extended permanently. This tax was added as part of the 1990 budget compromise.

Corporate tax rates: The proposal increases the top corporate tax rate from 34 percent to 35 percent for taxable income over $10 million.

Less-visible Taxes

Aside from an increase in tax rates, the Clinton proposal will generate additional taxes from individuals through other less visible sources.

Social Security benefits: Currently, up to 50 percent of Social Security benefits are included in gross income for Social Security recipients with modified AGI in excess of $32,000 ($25,000 single). The Clinton proposal increases the maximum proportion of taxable Social Security benefits to 85 percent.

Under this proposal, only Social Security recipients who are already subject to tax on a portion of their benefits would experience a tax increase. The effective date is not specified for this provision.

Meals, entertainment, and club dues: The current 20 percent disallowance for meals and entertainment expenses would be changed to 50 percent. No tax deduction would be allowed for club dues, regardless of the type of club, whether business, social, athletic, luncheon, or sporting. However, meals and other expenses incurred at a club will be 50 percent deductible to the extent otherwise allowed by the tax code. These provisions apply to taxable years beginning after December 31, 1993.

Additional Changes Affecting Wealthy Taxpayers

Other areas of the tax proposal target high-income taxpayers.

Estate and gift taxes: Under Clinton's proposal, the top tax rate on estate and gift transfers of $2.5 million to $3 million would be 53 percent. For transfers of more than $3 million, the top rate would be 55 percent. The tax rate on generation-skipping transfers, scheduled to be 50 percent in 1993, also would be 55 percent. These changes restore the estate and gift tax rates to pre-1992 levels. This provision would be effective January 1, 1993.

Qualified retirement plan contributions: Under current law, a variety of rules limit either the absolute amount that high-income taxpayers can contribute to a qualified retirement plan or the amount they can contribute relative to contributions for rank-and-file employees. The proposal reduces the maximum annual compensation that may be considered for calculating the maximum annual contribution to a qualified retirement or saving plan ($235,840 for 1993) to $150,000 beginning January 1, 1994. This change reduces high-income individuals' retirement contributions as compared with contributions for the rank and file. Other employee benefit provisions that are calculated based on this annual compensation threshold will have to be adjusted. This provision applies to taxable years beginning after December 31, 1993. Benefits accrued as of the effective date will be grandfathered.

AMT preference for gifts of appreciated property: The proposal would repeal the AMT preference for gifts of appreciated property. The property's full fair market value will be used for valuing the deduction for regular tax and AMT. The proposal applies to contributions of tangible personal property made after June 30, 1992, and contributions of other property made after 1992.

Substantiation and disclosure of charitable contributions: Clinton's proposal contains provisions that ban deductions for charitable contributions of $750 or more without written substantiation from the donee organization. The provisions were included in a bill that President Bush vetoed in November 1992.

Repeal of luxury tax: Congress has agreed to repeal the luxury tax on airplanes, boats, furs, and jewelry. The luxury tax on automobiles will also be indexed for inflation.

General Business Provisions

In addition to the corporate rate increase, several other provisions in the Clinton proposal affect businesses and wealthy individuals.

Executive compensation: The Clinton plan would limit corporate tax deductions to $1 million per year for salaries and other compensation paid to the top five executives of *publicly held* companies. This limitation, which does not apply to compensation linked to productivity, can be avoided through careful planning. Also, certain tax-qualified retirement and fringe benefits would be excluded from gross income when determining this limitation.

In a similar provision that Congress passed last year and President Bush subsequently vetoed, the limitation did not apply to compensation paid by partnerships. This provision would be effective for taxable years beginning after December 31, 1993.

Educational assistance: The proposal retroactively extends the exclusion for employer-provided educational assistance. This provision, which had expired June 30, 1992, now would be permanent.

Depreciation: The depreciation period for nonresidential real property would increase from 31.5 years to 36 years.

Small Business Tax Incentives

The Clinton proposal also includes incentives to help small businesses.

Self-employed medical expenses: The president's plan would retroactively extend self-employed individuals' 25 percent deduction for health insurance from June 30, 1992, through December 31, 1993.

Small business capital gains: The president proposes excluding 50 percent of capital gains from stock investments individuals make in qualified small businesses—either directly or through an investment partnership fund or other pass-through entity—if the stock is held for at least five years. In order to receive this capital gains benefit, small businesses would have to meet several requirements. Investors should consult their tax advisers regarding the capital gains treatment for investments in qualified small businesses. This provision would be effective for qualified investments made after January 1, 1993.

Expense allowance: Congress has replaced Clinton's proposed investment tax credit with a provision to allow businesses to deduct up to $25,000 of equipment purchased each year under Section 179.

Deductions and Compliance

The Clinton proposal would also require additional documentation and disallow other miscellaneous deductions.

Moving expenses: Currently, individuals may deduct certain moving expenses associated with changing jobs. The proposal would exclude from this deduction the costs of selling or purchasing a residence or settling a lease. Also, taxpayers no longer would be allowed to deduct the cost of meals as a moving expense.

Travel deduction for spouses: The Clinton proposal would prohibit deductions for travel expenses for a spouse, dependent, or other individual accompanying a person on business travel, unless 1) the spouse, dependent, or other individual is a bona fide employee of the person paying or reimbursing the expenses, 2) the travel is for a bona fide business purpose, and 3) the expenses would be otherwise deductible.

Information on independent contractors: The proposal would require corporations to file information returns on independent contractors earning more than $600 per year, including corporations for which reports are not currently required.

Conclusion

The Clinton tax proposals will affect all taxpayers, whether through higher income tax rates, taxes on Social Security benefits, or taxes on gasoline and energy use. The effect of the tax increases, which will impact wealthy individuals the most, can be minimized by developing strategies with a tax adviser before the end of the year. Careful planning can help better manage tax liabilities and avoid any surprises when April 15 arrives. MM

Arthur Sauter is a tax manager and Daniel Thibault is an associate tax consultant at the Minneapolis office of Deloitte & Touche, an international auditing, management consulting, and tax services firm.

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The only **cost** to you **is your commitment** to help curb this problem. Simply complete the membership application form below and mail to the Department of Mental Health, American Medical Association, 515 N. State Street, Chicago, IL 60610.

Yes, include my name in the *Coalition's* membership

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Medical Marriages

Opportunities and Challenges of the '90s

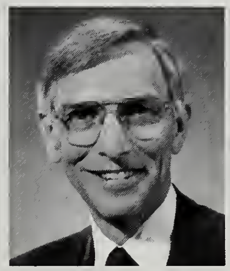
A. Stuart Hanson, M.D.

"The physician's marriage can either be the first casualty of the stress of medical practice or the most important resource for coping with that stress."

–Glen O. Gabbard, M.D., &
Roy W. Menninger, M.D.,
in "Medical Marriages"

If you ask me why I entered medical school more than 30 years ago, I would say it was because I wanted the opportunity to help people in need. Also, medicine was a respected profession, and physicians made an adequate income. My friends would say, "You'll be rich." My response and feeling at the time was that if I wanted to make money, I would go into business. With a pediatrician uncle and a medical technician mother, I had role models who gave me insight into the field I chose to enter. I turned myself over to an educational process that lasted 16 years after high school. When I finished, I had a specialty and subspecialty in medicine, a spouse, and two children. Not an uncommon story.

Now some physicians at the Menninger Clinic tell us from their studies that we physicians are not only conscientious, but we carry an exaggerated sense of responsibility, a drive for perfection that leads to workaholic habits, and a compulsiveness that leaves us unable to express warmth and tenderness. Other compulsive traits they find include perfectionism, indecisiveness, insistence that others do things our way, and excessive devotion to work and productivity to the exclusion of pleasures and personal relationships.



> "If we as physicians do not come to understand our compulsiveness and exaggerated sense of responsibility, we run the risk of self-destruction and family disharmony."

Although all of us do not fit the entire pattern, most of us can see some of the traits in our own behavior. The consequences for our patients are good. Compulsive physicians show up on time, return phone calls, and pursue patients' complaints diligently to find a diagnosis and treatment. But what might be good for patients can be personally destructive for the physician. Prospects for work success are good, but the effects on physicians and their families often lead to problems.

Glen O. Gabbard, M.D., and Roy W. Menninger, M.D., in their book "Medical Marriages" have a chapter on the psychology of the physician. They believe physicians commonly exhibit a triad of self-doubt, guilt, and an exaggerated sense of responsibility. As a result, the individual physician works excessively as a way to clear his or her conscience. This results in time for work first, time for family second, and time for self a distant third. Patients support compulsive traits in physicians, while spouses are more likely to complain about them. Often patients win out over family. We work the long hours, come late to meals, and miss family events while attending to our patients. If our spouses or children confront us about our actions, we feel guilty and withdraw. When concerns are stored up, an unloading of emotion and arguments often follow. Those who suffer in silence wait for a better day with such thoughts as, "things will be better in retirement."

If we are really behaving like the Menninger people say, we are in trouble in the 1990s. Between now and the year 2000, the expansion of health care information and new knowledge will be tremendous. Our ability to apply knowledge and technology to change the course of disease and injury will be mind-boggling. If we, as physicians, do not come to understand our compulsiveness and our exaggerated sense of responsibility and learn to tame it, we run the risk of self-destruction and family disharmony, dysfunction, and dissolution.

Many physicians and their spouses had an opportunity to attend a one-day workshop in May on medical marriages presented by Menninger Clinic staff and sponsored by the Hennepin County Medical Society and its auxiliary. Undoubtedly, they came away from the workshop understanding themselves and their spouses better and with a firmer base to meet the challenges of having a strong, successful medical marriage in a time that is likely to be full of stress and change. **MM**

People and Places Making Medical News

People

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Urological Society Officers

The Minnesota Urological Society elected Harold J. Hoppmann, M.D., president for 1993. He is a partner with Urologic Physicians, P.A., in Minneapolis and chief of staff at Fairview Riverside Medical Center.

David E. Patterson, M.D., of Rochester is president-elect; Carl S. Smith, M.D., of Minneapolis is secretary-treasurer; and John K. Matsuura, M.D., of St. Cloud is member-at-large.

FHCE Principal Clinical Coordinator

Julia Bell, M.D., M.P.H., has been named principal clinical coordinator of the Foundation for Health Care Evaluation, a state Medicare review organization based in Bloomington. At the FHCE, Bell will implement studies that will use health care data gathered by the government, hospitals, physicians, and providers to analyze and compare patterns of care and outcomes in an effort to improve the overall quality of health care in the state. Bell was previously medical director of Health Care Delivery Improvement at HealthEast Corp. in St. Paul.

Sister Kenny Institute Director

The Sister Kenny Institute appointed John F. Bowar, M.D., interim medical director. Bowar, a medical staff member with Abbott Northwestern Hospital/Sister Kenny Institute since 1976, has served in this position in the past. Currently, he is medical director of the institute's Head Injury Program and assistant medical director of its Chronic Pain Rehabilitation Program. He is also a clinical instructor at the University of Minnesota Department of Physical Medicine and Rehabilitation.

Places

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Changes Coming to 'U' Hospital's Private-practice System

The private-practice system at the University of Minnesota's hospital has come under fire recently, with the school's regents suggesting that President Nils Hasselmo hasn't done enough to reform the controversial system and charging that there is too much secrecy and too little accountability in the university's plan for change.

A recent Minneapolis-based *Star Tribune* investigation found that the university has little control over patient fees, which support professors' salaries and medical school education and research programs. Physicians and department heads handle the fees through private corporations they have formed. The physicians decide their own salaries, which the newspaper said are sometimes unusually high, even though the physicians practice on university premises.

Responding to the investigation, Hasselmo has called for more accounting in the system, and medical school officials have drafted a new plan that would ensure greater oversight of the money. However, the university's regents said the proposals do not go far enough to cure the ills of the medical school.

Although the medical school proposed creating a governing board to provide some monitoring and require some disclosure of how the money is used, the regents strongly criticized the plan because it would not change the patient-fee system in certain fundamental ways: It would not make doctors' salaries public; it would not guarantee the university a fixed share of the money; and it would not let the university examine the doctors' expenses.

Mayo Donates Land to Charities

Mayo Foundation has offered three Rochester charities gifts of land valued at $1 million in order to help them expand lodging facilities for patients and families coming to the area for treatment of serious illnesses. The gifts will go to two existing facilities—the Ronald McDonald House and Gift of Life Transplant House—and to the American Cancer Society for a proposed Hope Lodge.

"We've been hearing for some time from our staff, from patients, and from volunteers of the needs of these organizations," said Sharon Dunemann, administrator of Mayo Medical Center. "We're delighted to be able to offer this help."

United, Children's Hospitals Seeking Major Expansion

United and Children's hospitals of St. Paul are developing an expansion plan that includes more operating rooms, a medical office building, and expanded parking to address both current and anticipated patient increases. Although many details remain to be worked out, hospital officials said the plan could take 10 years and $35 million to complete.

"United and Children's is a land-locked campus," said Dan Riehle, vice president of campus services. "We have some needs that we have identified, but we don't have any details on how we're going to do it."

Hospital officials have asked St. Paul to help with the expansion plan by assisting in negotiations with the Minnesota Transportation Department for some vacant state-owned land near the campus and by improving the streets leading to the campus. They also would like the city to establish a tax increment financing district to help make the project economically feasible, and, if necessary, they would like the city to condemn private property that may be needed for the project.

Abbott's CVAC System Wins Award

A Minneapolis consulting engineering firm won a national engineering competition for a device it designed for Abbott Northwestern Hospital in Minneapolis. The Centralized Laser Smoke Evacuation System (CVAC), which was designed by the firm Michaud Cooley Erickson and serves 19 operating rooms at Abbott, was selected for the 1993 Grand Conceptor Award by the American Consulting Engineers Council from a field of 144 projects. The CVAC system evacuates laser smoke and bone debris, both of which pose infection risks to patients and surgical staff. Abbott is the only medical facility in the country in which the CVAC system has been installed.

Socioeconomics

Insurance Companies to Merge

Midwest Medical Insurance Company shareholders and Iowa Physicians Mutual Insurance Trust policyholders have approved the companies' plan to merge this summer. The combined insurer will service more than 5,000 physicians, and it will have assets of nearly $200 million and policyholder surplus in excess of $50 million.

This is the first cooperative merger of two physician-owned malpractice insurance companies. MMIC will continue to service Iowa policyholders from IPMIT's current office in Des Moines, Iowa.

Blood of Relatives No Safer than Blood From Blood Bank

More than half the blood that friends and family donate for specific patients has to be discarded because it fails to meet federal safety requirements or isn't needed, according to Jeffrey McCullough, M.D., head of transfusion medicine at the University of Minnesota and scientific director of American Red Cross Blood Services in St. Paul. McCullough, who overhauled the American Red Cross' blood banking system in 1990-91, said many doctors had hoped blood from relatives would be safer. This hasn't proved true.

"Directed donor blood doesn't seem to be any safer than the blood donated at blood banks and hospitals," McCullough said.

Federally required tests for donated blood have increased costs for blood banks and forced them to discard blood that is probably safe, he said, mainly because of false positives that show up in the test results. Another problem with directed donor blood is the higher cost of processing and storing blood donated for an individual compared with blood donated at a blood center, said McCullough. Also, about 44 percent of blood collected for specific people is never used, largely because it isn't needed.

McCullough wrote an analysis of the nation's blood system for the May 5 *Journal of the American Medical Association.*

Minnesota Receives RWJ Grant

The Robert Wood Johnson Foundation chose Minnesota and fourteen other states to receive 15-month grants of up to $100,000 as part of a program to improve the states' success in recruiting and retaining health care providers in medically underserved communities, such as rural and inner-city areas.

"Much of the focus for health care reform is directed at making sure people have access to primary and preventive health care services," said Marlene Marschall, Minnesota's commissioner of health. "This grant will help us address the shortage of these essential providers, removing some of the barriers that prevent Minnesotans from receiving adequate health care."

The state's Office of Rural Health, created by the 1992 MinnesotaCare legislation, will serve as the lead organization for the program, along with the Minnesota Center for Rural Health.

Immunizing Children a Priority

Recent concern in Minnesota and the nation over the resurgence of diseases such as measles, mumps, and whooping cough has prompted politicians and health officials to propose various plans to deal with low child immunization rates.

Between 37 percent and 56 percent of the 7.8 million 2-year-olds in America—about four million children—are not fully immunized, according to the Department of Health and Human Services. In response, President Clinton unveiled in early April a $1.1 billion program that would provide every American child with free vaccinations. Since then, the president has been forced to scale back the plan due to budgetary constraints as well as Congressional criticism that the program would subsidize families that already can afford the vaccinations. The new proposal would only cover the cost of fully vaccinating children whose families cannot afford to do so.

Minnesota has frequently been criticized for fully immunizing only 61 percent of its 2-year-olds, a statistic some say is misleading. Recently, the Department of Health developed what it considers a better method to assess immunization rates. Rather than simply counting all those who are fully immunized by their second birthday, the department looks at each child's immunization history. The previous method provided an overly pessimistic picture, state epidemiologist Michael Osterholm said, because there is a significant variation in the age at which children get their shots. The new study shows that 85 percent of children have received the appropriate diphtheria-tetanus-whooping cough shots by 17 months, 91 percent have received their second polio immunization by 17 months, and 84 percent the desired number of measles-mumps-rubella vaccines by 24 months.

However, the health department found lower immunization rates in some inner-city neighborhoods and certain rural areas; it plans to target these communities. The department and the Minnesota Council of HMOs together have launched a state-wide health care campaign to educate parents of newborns with information on child immunization.

United HealthCare Acquiring Chicago HMO

United HealthCare Corp. and HMO America, Inc., announced they have signed an agreement under which United HealthCare will acquire HMO America, which owns and operates a 300,000-member health plan in Chicago. Completion of the purchase is expected by September.

The acquisition will give United HealthCare, already the nation's largest multistate provider of managed care coverage to Medicaid patients, the largest managed care health system in the Chicago area.

Rates, Trends, Data

Minnesota Fares Well in Children's Health Survey

Minnesota children are the third healthiest in the nation, trailing only North Dakota and Vermont and tied with Massachusetts, a recent study shows. The study, which compared such factors as prenatal care, immunization rates, poverty, and health education, found great disparity in children's health among the states.

Children in the Midwest and Northeast, for example, are nearly 50 percent healthier than those living in the Southeast, according to the study conducted by Northwestern National Life Insurance Co. of Minneapolis.

Minnesota, Maine, and Alaska had the lowest percentage of newborns weighing less then 5.5 pounds—4.9 percent—while the highest percentages occurred in Louisiana, South Carolina, and Mississippi—all slightly higher than 9 percent. Minnesota ranked second best in all-cause child mortality with 74.8 deaths per 100,000 children aged 19 and under.

Minnesota's high school graduation rate led the country, with 89.7 percent of ninth-graders in 1986 finishing high school within four years. The three worst states were Florida at 61.1 percent, South Carolina at 58.5 percent, and Louisiana at 56.7 percent.

In other areas, Minnesota's rankings varied widely. The state ranked eighth lowest in percentage of children aged 15 to 19 who smoke, 22.9 percent; ninth lowest in percentage of population without health insurance, 9.3 percent; and tenth lowest in percentage of children living below the defined poverty level in 1989 ($12,674 for a family of four), 12.4 percent.

However, the state reported 4.8 suicides per 100,000 youth aged 19 and under in 1989, the 42nd worst rate in the country. Minnesota also ranked in the bottom half of states for adequate protection against childhood diseases, despite efforts aimed at universal immunization.

Drug Use on the Rise Among Eighth-graders

Drug use among eighth-graders increased unexpectedly in 1992, according to a University of Michigan study. A survey of nearly 50,000 students in the eighth, 10th, and 12th grades found that 13- and 14-year-olds reported "modest but statistically significant" increases from 1991 and 1992 in the use of marijuana, cocaine, crack, LSD other hallucinogens, stimulants, and inhalants.

According to the survey, LSD use among high school seniors last year reached its highest level since 1985. Although overall drug use continued to decline, researchers said the increased use of drugs among eighth-graders may be tied to a change in their perception of the drugs' dangers.

Medical Research

Asthma Deaths Go Unreported

The death rate from asthma in the United States may be twice as high as federal officials have estimated, Mayo Clinic researchers report, because only 42 percent of asthma-related deaths were recorded as such.

The findings of the study were reported in the April 21 *Journal of the American Medical Association* by a team led by Loren Hunt Jr., M.D., an allergist at Mayo Clinic.

Researchers studied the medical records of 339 asthmatic Rochester residents who died during the 20 years ending with 1983 and examined their death certificates.

"For every asthma death we found on a death certificate, we found another asthma death that wasn't recorded as an asthma death," Hunt said. Despite the availability of improved asthma drugs, the death rate didn't decrease from 1964 to 1983. There are many reasons why asthma might have been omitted from the death certificates, the authors said. Few physicians receive instructions on how to fill out the certificate properly, the doctor's diagnosis may be incorrect, and only a small percentage of deaths are followed by autopsies, they said.

In addition, the researchers said that occasionally the physician attributed the underlying cause of death to emphysema or some respiratory problem other than asthma.

Gender Affects Outcome of Angina Pectoris

Compared with men, women diagnosed with angina pectoris, a warning sign of coronary heart disease, live longer and are at lower risk for heart attack, according to a study published in the May 12 *Journal of the American Medical Association.*

In the study, Mayo Clinic researchers followed 1,140 women and 1,501 men first diagnosed between 1960 and 1979 with angina pectoris or myocardial infarction/sudden unexpected death. Without considering age, they found that 70.4 percent of the women survived 10 years after their initial diagnosis, while only 59.2 percent of the men survived.

Female Angioplasty Deaths Due to Severity of Disease

Women who undergo coronary angioplasty have a higher hospital death rate than men, but the difference has more to do with the severity of the disease than any inherent difference in the arteries of men and women, a Mayo Clinic study has found. The study, which appeared in the April 28 *Journal of the American Medical Association*, appears to dispel fears that women who undergo angioplasty were at higher risk because of their smaller coronary arteries. More than 400,000 angioplasties will be performed in the United States this year, about one-third of them on women.

In the Mayo study, researchers studied 3,557 patients who underwent percutaneous transluminal coronary angioplasty between 1979 and 1990, 27 percent of whom were women. The procedure was successful in 85 percent of the women and 86 percent of the men, with an in-hospital mortality rate of 4.2 percent for women and 2.7 percent for men.

While the difference in mortality rate is statistically significant, it should not be overemphasized, said Malcolm Bell, M.D., a Mayo cardiologist who headed the study. The difference can be explained entirely by the fact that the women had more significant disease and were older than the men when they underwent the procedure, he said

Vitamin E Can Control LDLs

Researchers at the University of Minnesota have found that high doses of vitamin E can lower the risk of heart disease, although vitamin C has no such apparent effect. University researchers had theorized that both vitamins could work as antioxidants, which prevent low-density lipoproteins from oxidizing. When oxidized, LDLs become toxic chemicals that can damage artery walls and allow plaque to build-up, eventually clogging the arteries.

In a six-week series of blood tests taken from 10 men using vitamin supplements, only high doses of vitamin E prevented the LDLs from oxidizing. However, the protective effects of vitamin E quickly disappeared once patients quit using the supplement.

Hormone Therapy Curbs Heart Disease

Taking both estrogen and progestin appears to be more effective in protecting postmenopausal women against cardiovascular disease than taking estrogen alone, according to a University of Minnesota study published in the April 15 *New England Journal of Medicine.*

The combination, which also eases the discomfort of menopause, eliminates one of the most ominous occasional side effects of taking estrogen alone—an increased risk of precancerous changes in the lining of the uterus and cancer of the lining, said Aaron Folsom, M.D., professor of epidemiology and one of the study's authors. He said estrogen will reduce a postmenopausal risk of heart disease by 42 percent; a combination of the two hormones will reduce it even more. Folsom said the combination increases the levels of HDL-cholesterol, thought to reduce the risk of clogged coronary arteries and heart attacks. It also lowers the level of triglycerides and Factor VII—a chemical thought to increase the risk of heart attacks and strokes by creating blood clots—and improves blood sugar and insulin levels, the researchers said.

Clot-busting t-PA More Effective

In two recent international studies, researchers found the clot-dissolving drug tissue plasminogen activator more effective in treating heart attack patients than its low-cost competitor, streptokinase. However, some critics question t-PA's advantage to the average patient, considering its high cost.

In a $55 million, 14-country study, 41,000 people with heart attacks were randomly assigned to receive either t-PA, which costs about $2,250 a dose, or streptokinase, which costs about $350. Of those who died within 30 days of a heart attack, 6.3 percent had been given t-PA and 7.3 percent had been given streptokinase. The study was sponsored by t-PA's manufacturer, Genentech Inc.

A second large-scale study—the Global Utilization of Streptokinase and t-PA for Occluded Coronary Ateries (GUSTO-1)—confirmed a "small but statistically significant difference" between t-PA and streptokinase. However, researchers reported that t-PA is most effective when administered up to four hours after a heart attack.

"If you don't get to the hospital within the first four fours, there's not much difference between the cheaper streptokinase and the more expensive t-PA," said researcher Peter Sleight, M.D., professor of cardiovascular medicine at the University of Oxford, England.

"So for the average heart attack patient, this puts into question the value of t-PA considering the drug's much greater cost," Sleight said.

Integration in an ISN

The concept of ISNs is central to the new type of health care delivery system conceptualized and recommended by the Minnesota Health Care Commission. Health Care Commission member K. James Ehlen, M.D., chair and CEO of Medica and chair of the Commission's Services Delivery Subcommittee, shares his thoughts on how ISNs will dramatically change the current health care system.

"ISNs represent a new way of doing business that will bring greater integration to the delivery of health care in Minnesota."—K. James Ehlen, M.D.

Many physicians have asked me, "Are ISNs something new, or is it just a new acronym for an old system?"

The concept of ISNs is different. And it's a concept that I truly believe will bring positive changes to the health care system because of its operative word: **Integration.**

Literally, integration means to combine parts into a whole. And that's exactly what ISNs will do. ISNs will represent a strategic alliance between all of the players in the heath care system—physicians, health plans, hospitals and other providers.

Medica currently invites its physicians to help the plan set policy and guidelines through participation on the board or Medical Policy Council. But ISNs will bring this concept further, requiring us all to form a true partnership, with one common vision, and common strategic objectives.

ISNs will encourage greater inter- and intra-professional collaborations as everyone works toward the goal of delivering quality, cost-effective care. These collaborations also will be critical in the development of uniform practice parameters, billing and claims systems, utilization review requirements, and criteria for the use of new technology and diagnostic equipment.

Competition between ISNs will be promoted and facilitated through the availability of comparable data on price, costs, utilization and quality. ISNs will be required to provide the full array of health care services for a fixed price to the consumer. So the greater the degree of integration of clinical, financial, information and governance systems, the greater the potential for quality improvement and cost reduction.

This year, we are working to design procedures for determining ISN status, and rules that will govern ISNs and the all-payer system for non-ISN services. This will allow health plans and providers an opportunity to make appropriate decisions about whether to join or form an ISN before the state implements an all-payer system.

MEDICA

Advertisement

AIDS Update

'U' Discovers Transmission of AZT-resistant AIDS

Researchers at the University of Minnesota have found that AZT-resistant AIDS viruses can be transmitted from person-to-person, a discovery that may lead to major changes in the treatment of patients diagnosed as HIV-positive.

Henry Balfour, M.D., a virologist who heads the university's AIDS Clinical Trials Unit, said in the April 22 *New England Journal of Medicine* that it is possible that physicians won't begin drug treatment of AIDS patients until they get lab test results to determine if the infection is from the virus resistant to AZT. The tests could add substantially to the cost of treating HIV.

However, Balfour said it is too early to be certain of the finding's ramifications, as it isn't known how common the transmission is yet. The report is based on the discovery that a 20-year-old Minneapolis man was infected with an AZT-resistant virus he apparently got from an HIV-infected man who was taking AZT. Until this case, many doctors believed that an AZT-resistant virus, weakened by treatment, might be far less infectious than the natural virus, he said.

Acer May Have Transmitted AIDS to Another Florida Patient

A Florida high school senior, Sherry Johnson, identified herself as the sixth patient believed to have been infected with HIV by David Acer, D.D.S., who died of AIDS in 1990.

Acer is the only doctor or dentist known to have transmitted HIV to a patient.

Johnson, who tested positive for HIV in December when she tried to enlist in the Navy, was last treated by Acer when she had a cavity filled at his office in 1989.

Three other members of her family, also Acer patients, tested negative.

Harold Jaffe, M.D., director of the Centers for Disease Control and Prevention's division concerned with AIDS, said that Johnson, unlike the other five patients Acer infected, had not undergone invasive procedures, such as extraction or a root canal, under the dentist's care.

"In some ways her lack of more invasive procedures makes the whole case more mysterious," he said.

Johnson and her family said they felt betrayed by health care officials and others who had repeatedly suggested that the odds of being infected by a dentist were negligible.

In a recent study, researchers in New Hampshire, Maryland, and Florida found that more than 2,500 patients were treated by two AIDS-infected surgeons and by Acer without catching the virus from them. In the *Journal of the American Medical Association*, they said the chance of an infected physician transmitting AIDS to a patient is extremely remote.

AIDS Cases Continue to Grow

More than 35,000 new AIDS cases were reported in the United States during the first quarter of 1993, federal officials said. About 60 percent of the increase—21,582 cases—stemmed from a new, broader definition of the disease. The dramatic increase is a sign that the AIDS epidemic is continuing to grow, said John Ward, M.D., chief of AIDS surveillance for the Centers for Disease Control and Prevention.

AIDS Vaccine for Mothers May Protect Newborns

Experimental AIDS vaccines will be given to HIV-infected pregnant women to test whether the drugs are safe and whether their fetuses can be protected from the disease, federal health officials have announced.

Health and Human Services Secretary Donna Shalala said the candidate vaccines are being tested for their ability to stimulate an anti-virus response in women who have HIV and to find out if their response is passed on to the fetuses.

Two vaccine trials will be conducted at eight university research hospitals. MM

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RAMSEY

A Calendar of Continuing Medical Education Courses

Provided through the MMA Medical Education Subcommittee on CME Resources. For assistance with scheduling meetings or for information on future medical meetings and CME courses, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; 612/378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

JUNE 1993

June 7-11 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 11-12 **Advanced Laparoscopic Abdominal Surgery** Abbott Northwestern Hospital, Laser Education Center; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Don Young, CME-14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/574-7982 or 800/343-DOCS.

June 16-18 **Topics and Advances in Pediatrics** Office of Continuing Medical Education, University of Minnesota Medical School; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Becky Noren, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600.

June 16-19 **57th Annual Course: Progress in Gastrointestinal Surgery** Department of Surgery, University of Minnesota Medical School; Willey Hall, University of Minnesota, Minneapolis, MN. CONTACT: Becky Noren, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600.

June 18 **The Duluth Clinic 1993 Family Practice Conference** The Duluth Clinic, Ltd.; Fitger's Spirit of the North Theatre, Duluth, MN. CONTACT: Rockie Odberg, 400 East Third Street, Duluth, MN 55805; 218/725-3838.

June 21-25 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 25 **Group Medical Practice for the Future** United Hospital; United Hospital, St. Paul, MN. CONTACT: Carolyn Ridenour, PO Box 1973, Fayetteville, AR 72702; 501/444-0664.

June 25-26 **Bone and Soft Tissue Tumors** Office of Continuing Medical Education, University of Minnesota Medical School; Oak Ridge Conference Center, Chaska, MN. CONTACT: Becky Noren, Office of Continuing Medical Education, 615 Washington Avenue SE, Suite 107, Minneapolis, MN 55414; 612/626-7600.

June 26-27 **Minnesota Obstetrical and Gynecological Society Spring Meeting** Minnesota Ob/Gyn Society; Gainey Conference Center, Owatonna, MN. CONTACT: Susan Thompson, Park Nicollet Medical Center, 5000 West 39th Street, Minneapolis, MN 55416; 612/924-1802.

JULY 1993

July 10-11 **Spinal Care & Surgery in the 1990's: An Overall Perspective** Minnesota Spine Center; Madden's on Gull Lake, Brainerd, MN. CONTACT: Minnesota Spine Center, 606 24th Avenue South, #606, Minneapolis, MN; 612/672-6685.

July 12-16 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

July 26-30 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, International Diabetes Center, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

AUGUST 1993

Aug. 18-20 **Laboratory Diagnosis of Viral Infections** Mayo Medical Laboratories; Mayo Clinic, Harold W. Siebens Building, Rochester, MN. CONTACT: Mayo Medical Laboratories, Office of Continuing Education, 200 First Street SW, Rochester, MN 55905; 800/533-1710.

Aug. 23-Sept. 3 **Eleventh Annual Occupational Health and Safety Institute** St. Paul-Ramsey Medical Center; St. Paul-Ramsey Medical Center, St. Paul, MN. CONTACT: Office of CME, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

SEPTEMBER 1993

Sept. 13-15 **Practical Surgical Pathology** Mayo Medical Laboratories; Mayo Clinic, Harold W. Siebens Building, Rochester, MN. CONTACT: Mayo Medical Laboratories, Office of Continuing Education, 200 First Street SW, Rochester, MN 55905; 800/533-1710.

Sept. 17-18 **Advanced Laparoscopic Abdominal Surgery** Abbott Northwestern Hospital, Laser Education Center; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Don Young, CME-14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/574-7982 or 800/343-DOCS.

Sept. 19-20 **VI International Symposium on Tuberous Sclerosis Complex** Mayo Foundation; Leighton Auditorium, Siebens Medical Education Building, Rochester, MN. CONTACT: Rita Kunz or Jan Fleck, Mayo Foundation, Section of CME & International Education, 200 First Street SW, Rochester, MN 55905; 507/284-2509.

Sept. 23-24 **Point of Care Testing** Mayo Medical Laboratories; Mayo Clinic, Harold W. Siebens Building, Rochester, MN. CONTACT: Mayo Medical Laboratories, Office of Continuing Education, 200 First Street SW, Rochester, MN 55905; 800/533-1710.

Sept. 24-25 **Advanced Gastrointestinal Tract Surgery** Abbott Northwestern Hospital, Laser Education Center; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Don Young, CME-14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/574-7982 or 800/343-DOCS.

Sept. 29-Oct. 1 **56th Course Principles of Colon and Rectal Surgery** University of Minnesota; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Colon and Rectal Surgery, CME, Suite 107, Radisson Hotel Metrodome, 615 Washington Avenue SE, Minneapolis, MN 55414; 612/626-7600 or 800/776-8636.

Sept. 30-Oct. 2 **Phlebotomy** Mayo Medical Laboratories; Mayo Clinic, Harold W. Siebens Building, Rochester, MN. CONTACT: Mayo Medical Laboratories, Office of Continuing Education, 200 First Street SW, Rochester, MN 55905; 800/533-1710.

OCTOBER 1993

Oct. 1-2 **Advanced Life Support in Obstetrics (ALSO)** Health One Corporation; United/Children's Conference Center, St. Paul, MN. CONTACT: Dennis O'Keefe, Health One Medical Education, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/343-DOCS.

Oct. 1-2 **Pelvicscopic Surgery** Abbott Northwestern Hospital, Laser Education Center; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Don Young, CME-14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/574-7982 or 800/343-DOCS.

Oct. 1-3 **Mayo Telemedicine Symposium** Mayo Foundation; Mayo Foundation, Rochester, MN. CONTACT: Rita Kunz or Jan Fleck, Mayo Foundation, Section of CME, 200 First Street SW, Rochester, MN 55905; 507/284-2509.

Oct. 2-5 **Fourth International Workshop on Multiple Myeloma** Mayo Foundation; Phillips Hall, Siebens Medical Education Building, Rochester, MN. CONTACT: Rita Kunz or Jan Fleck, Mayo Foundation, Section of CME, 200 First Street SW, Rochester, MN 55905; 507/284-2509.

Oct. 7-8 **American College of Emergency Physicians' & American Academy of Pediatrics' Advanced Pediatric Life Support Course** Department of Emergency Medicine; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Rachel Knudson, R.N., 701 Park Avenue South, Minneapolis, MN 55415; 612/347-3638.

Oct. 7-8 **Seventh Update: Emergency Medicine for Primary Care Physicians** St. Paul-Ramsey Medical Center; St. Paul-Ramsey Medical Center, St. Paul, MN. CONTACT: Office of CME, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Oct. 8-9 **Cutaneous Laser Surgery** Abbott Northwestern Hospital, Laser Education Center; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Don Young, CME-14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/574-7982 or 800/343-DOCS.

Oct. 11-12 **Advanced Trauma Life Support (ATLS)** Health One Corporation; United/Children's Conference Center, St. Paul, MN. CONTACT: Dennis O'Keefe, Health One Medical Education, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/343-DOCS.

Oct. 21-22 **Pulmonary Function Testing Workshop** St. Paul-Ramsey Medical Center; St. Paul-Ramsey Medical Center, St. Paul, MN. CONTACT: Office of CME, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Oct. 22-23 **Advanced Laparoscopic Abdominal Surgery** Abbott Northwestern Hospital, Laser Education Center; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Don Young, CME-14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/574-7982 or 800/343-DOCS.

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The MMA Committee on Accreditation and CME has recently reaccredited the following CME sponsors:

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First Lady Brings Encouraging News to AMA Annual Meeting

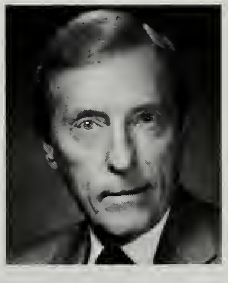
Edmund C. Burke, M.D.

Physicians' heads are spinning from the monumental changes occurring in health care—changes that show no sign of slowing. In Minnesota, state health care reform has only begun. Nationally, the Clinton administration has been busy formulating health care reform proposals, but it has thus far kept quiet about the details, which it plans to announce in September.

Indeed, when Hillary Rodham Clinton spoke June 13 at the American Medical Association's annual meeting, she did not reveal any details, such as how the plan might be financed. She did, however, hammer home the realization that private practice as we have known it in the United States is on its way out.

The fact that we don't know the full extent of the administration's plan is cause for some concern and anxiety, but much of what we do know is encouraging. In her speech, the first lady reiterated that the administration's goals for health care reform include universal access, a benefits package that includes prescription drugs, and a commitment to medical research.

Although physicians have applauded universal access from the onset, we have been concerned that the administration may try to achieve it through a Canadian-style single-payer system. Mrs. Clinton drew applause and praise from AMA delegates when she said we need "an American solution for an American problem," and further stated that "two of the principles that underlie the American solution are quality and choice." She indicated that choice would be central to any new system, allowing patients to choose their physicians and physicians to choose the health plans for which they work. Physicians would also have the option to work with more than one plan simultaneously.



"I applaud the Clinton administration's intention to let medicine cure many of its own woes."

Mrs. Clinton mentioned a number of other reforms that physicians support, such mandatory community rating and elimination of insurance restrictions for people with preexisting conditions. She stressed the importance of limiting malpractice lawsuits, relaxing regulation of medical laboratories, and freeing physicians from burdensome government supervision, all of which would help attain better quality health care and contain costs.

Mrs. Clinton seemed to have a clear understanding of the daily hassles physicians face, citing that physicians and their offices spend about 80 hours a month on paperwork. She offered physicians a "new bargain," stating that the White House, for its part, will propose to ease the regulatory burdens and paperwork and help physicians regain public trust. In return, she asked that the medical profession make a commitment to police itself and weed out incompetence and negligence.

"Blanketing the entire profession with rules aimed at catching those who are not living up to their professional standards does not improve quality," she said. "We need to remove from the vast majority of physicians these unnecessary, repetitive, often unread forms and substitute more discipline, more peer review, more careful scrutiny of your colleagues. Let us remove the kind of micromanagement and regulation that has not improved quality and has wasted billions of dollars."

The first lady received standing ovations from the nearly 900 delegates and alternates at the AMA annual meeting. Physicians I spoke with were impressed with the speech, and some expressed outright admiration. She has clearly demonstrated her willingness to identify and understand many of the problems that plague physicians, and she also shows the drive to resolve the problems positively, for both the medical community and society as a whole. She is undertaking not only an impressive and admirable endeavor, but one that seems almost overwhelming.

Organized medicine has played an integral role in the process of shaping health care reform, both nationally and in Minnesota. I applaud the administration's intention to let medicine cure many of its own woes, as we know them only too well. If, as Mrs. Clinton suggested in her speech, we enter into a "new bargain," we must strive to restore dignity, excellence, and professionalism to the medical profession.

As the first lady said, "If we do not have the courage to change now, the entire society, but most particularly medicine, will suffer." MM

Gender-Responsible Leadership

Cracking the Glass Ceiling

Minnesota Medicine interviews Catharine Herr Van Nostrand

Women are sometimes forced to confront gender bias in the workplace. Blatant bias is evident in obvious sexist slurs, jokes, innuendoes, and power maneuvers, but subtler bias can be equally damaging because it is less noticed, says educator and gender-issues consultant Catharine Herr Van Nostrand.

In Van Nostrand's recent book, "Gender-Responsible Leadership: Detecting Bias, Implementing Interventions," which she discusses in the following interview, she documents how females are categorized, trivialized, criticized, and even ostracized in group and one-on-one interactions. She believes leaders in all fields are obliged to recognize gender bias and intervene to create a positive group environment.

"Gender-responsible leadership has to do with intervening, whether the sexism takes place in an institution or a clinic, or whether it occurs in the physician-patient relationship or in the medical school classroom," she says.

In her book and her workshops, Van Nostrand focuses on practical strategies to combat gender bias, ranging from discussing sexist comments when they occur to intervening directly and abruptly if the behavior doesn't change. The book, an outgrowth of Van Nostrand's master's thesis on human development at St. Mary's College in Winona, Minnesota, includes case studies and examples from her own experiences and those of educators and leaders to pinpoint both subtle and overt sexism in the workplace. She now employs much of the material in her consulting work.

Van Nostrand earned her bachelor's degree in education from the University of Iowa and has worked as an educator and consultant on gender issues for 20 years. She is the founder of the consulting firm Catharine Van Nostrand and Associates in St. Cloud, Minnesota, and she regularly conducts workshops and seminars with a variety of organizations on identifying and dealing with gender bias.

Catharine Herr Van Nostrand

> "Gender-responsible leadership requires decision makers in an organization to have a clear understanding of sex discrimination and a commitment to stop it."

Minnesota Medicine: Please tell us about your activities as a gender-issues consultant, speaker, and workshop facilitator, and particularly about your work with health care organizations.

Van Nostrand: In the past, I've done training in stress management and assertiveness, but the focus of my current work is on gender-responsible leadership—how leaders can be more accountable for their behavior, learn to detect sexism in their own leadership methods, and intervene when they detect bias in others. Over the past 20 years, I've done a lot of work with health care organizations. I've spoken at conferences for dentists and nurse anesthetists, and I've done in-house training for nursing homes, hospitals, and dental offices. I also have served as a volunteer speaker for cardiac support groups and chemical dependency units. Last year I had the opportunity to present a session on sexism for health care professionals at the Sixth Annual Symposium on Obesity Surgery in Genoa, Italy, an abstract of which was published in the journal *Obesity Surgery*.

Confronting Subtle Bias

Minnesota Medicine: In your consulting work with clients, have you found that leaders understand blatant and subtle bias?

Van Nostrand: I would say that among organizations I've served regionally and nationally, blatant bias is quite well understood. People understand that they can't make offensive jokes in the workplace or put people down for being different, whether by virtue of gender, race, disability, sexual preference, ethnicity, or any other reason. However, what I'm most interested in is subtle bias, which is *not* so well understood. I'm interested in such issues as where women sit in a conference room, who gets acknowledged during meetings, and why women are frequently interrupted. I'm also interested in the reasons why no women hold leadership positions in certain corporations and why no women of color are employed in some companies. These are subtle barriers that keep women invisible and marginalized—the old "glass ceiling."

Minnesota Medicine: One example of subtle bias that you mention in your book, "Gender-Responsible Leadership," is the corporate woman who is labeled as aggressive or persistent if she stands up and speaks at a meeting. Please explain.

Van Nostrand: Our society measures women by a double standard. For example, if a woman speaks 20 to 30 percent of the time in a group, she's often seen as monopolizing the conversation because the standard for women (at least for many white women) is to be docile, ladylike, passive, and relatively silent. Women are seen as aggressive when they depart from this. But if a man speaks 70 or 80 percent of the time, he's considered normal because that's expected behavior.

Minnesota Medicine: What other examples of subtle bias have you encountered?

Van Nostrand: I was keynote speaker at a conference recently, and more than 5 percent of the women in the audience came up to me during the day with tears in their eyes and told me about discrimination law suits they're in right now. One woman said to me, "Catharine, I received flowers on secretaries day," and I responded, "That's nice, I'm glad your boss remembered you." She looked at me and said, "You don't understand—I'm not his secretary. I'm an electrical engineer, and I have 20 people under me, including secretaries, draftsmen, and draftswomen." Such covert sexism is especially insidious because it appears to be thoughtful, considerate, and chivalrous, when it is really patronizing and condescending.

The women that approached me were angry and frustrated, to the point of tears. Their work environments can be extremely hostile, and sometimes not just because of subtle bias. Some women still encounter blatant sexism. One woman's boss requested that she have dinner with some men visiting their company and take them to Solid Gold, a bar with topless dancers. These attitudes are part of the reason we don't have more females as heads of hospital departments and corporations, for example. Remarks like these set up a hostile climate that makes work difficult; that's what harassment is all about.

> "In order to empower women and crack the glass ceiling, we need to be less top-down oriented and a little more grassroots—more egalitarian."

Minnesota Medicine: Much of the current interest in gender bias, and especially in sexual harassment, came to full bloom during the Anita Hill/Clarence Thomas confrontation. The nation was glued to the television during those hearings. How do you think their confrontation changed people's views?

Van Nostrand: The value of Anita Hill's testimony is that it raised awareness. During the hearings, many women said, "Hey, that kind of thing has happened to me, but I never had the courage to step forward." Anita Hill was willing to step forward, and that gives other women courage to speak out. I think the hearings served as a lightning rod to activate women, as well as men—we must remember that a lot of men are harassed, too. I believe her testimony gave us permission to admit these things are happening, and we can talk about them more openly now.

Establishing Gender-Responsible Leadership

Minnesota Medicine: Is awareness of gender bias increasing, or do we still face a long, hard battle with no end in sight?

Van Nostrand: I have to be hopeful. My book has gone into a second printing, and many people identify with the case studies in the book. That's good news. People want to hear about responsible leadership, and they want to do something to encourage it. Nevertheless, there is still an enormous amount of resistance out there.

Minnesota Medicine: In your own work as a facilitator and speaker, have you encountered this resistance or had confrontations with workshop participants?

Van Nostrand: I was recently consulting with a group when the top executive said, "Well, Catharine, we really have settled gender bias and diversity issues in our company. We discuss them at least once every three months." I looked him square in the eyes and said, "The reason you hired me is to help make gender bias and diversity issues *part of your everyday language*." He was saying the company had the issue all wrapped up, but I knew I was there because the company was in trouble.

Minnesota Medicine: What is your advice for implementing gender-responsible leadership?

Van Nostrand: Gender-responsible leadership requires decision makers in an organization to have a clear understanding of sex discrimination and a commitment to stop it. Among other steps, this means those in power must: 1) provide training in diversity awareness for all employees, including themselves, 2) have clear definitions of, and zero tolerance for, sexual harassment, 3) assure that company policies, especially in hiring and promotion, are gender fair, and 4) take prompt remedial measures when employees report discrimination.

Minnesota Medicine: What represents the greatest challenge to attaining gender-responsible leadership?

Van Nostrand: People in power.

Minnesota Medicine: Power poses a threat?

Van Nostrand: Yes. Power brings with it privilege, and this privilege can be abused. Some people see power as a way to control others; I see power as a mandate to assure that others are treated fairly. At this time in our history, males hold most of the power in our society. They have the choice whether to use this privilege responsibly or to abuse it. I talk a lot about male privilege in my book. John Driggs, a therapist in the Twin Cities, defines male privilege as a social system "that encourages men and women to believe that men are entitled to special treatment simply because they are men." For example, a woman recently told me she wanted to be on the Chamber of Commerce board of directors, but her boss told her that only people in the higher echelons of his company would qualify—meaning she didn't. When you have a top-down system, with men on the top, the system perpetuates itself. This man was perpetuating the system. The woman wanted to serve and would have been an excellent candidate, but her boss shot her down. I'm so discouraged by that. In order to empower women and crack the glass ceiling, we need to be less top-down oriented and a little more grassroots—more egalitarian.

Assessing Interactions in Medical Settings

Minnesota Medicine: What are your thoughts on the medical profession, which remains highly male-dominated? From your research and experience, what kinds of problems need to be addressed? For instance, how do you feel about the way medical school faculty treat students?

Van Nostrand: I'd like to address not only medical school faculty relationships with students, but also physician relationships with nurses and patients. Whole layers of interaction in the medical profession need to be addressed. Here's an example. I heard a story from a woman physician who was describing her preadmission interview with the dean of the medical school. At the onset of the interview, in a curious combination of oblivion and awareness, the dean announced, "I want you to know that I don't think women belong in medicine, but I won't let that influence our interview." Can you imagine being a young woman in your 20s and hearing the dean say this before you've even been accepted into medical school? This is what I mean by people in power setting up an intimidating and hostile climate. Those words are a threat and contribute to a "chilly climate" that discounts and discourages women and makes learning more difficult.

Minnesota Medicine: What sort of problems exist in the classroom and in clinic and hospital settings?

Van Nostrand: Dr. A. Stuart Hanson, president of the Minnesota Medical Association, was once quoted in an article about how the medical profession is becoming more committed to recognizing and confronting violence, such as domestic abuse. He stated words to the effect that in medical schools, doctors themselves suffer a form of abuse. Medical students are often taught through intimidation—deliberately asked questions they don't know, for example. Intimidation is a subtle form of violence. This devaluing of others may carry into the workplace. For example, relations between nurses and doctors are not typically healthy and often are filled with intimidation.

"Medical students are often taught through intimidation—deliberately asked questions they don't know, for example. Intimidation is a subtle form of violence."

In my book, I use a model called "The Male/Female Continuum" from a book of the same name by consultants Carol Pierce and Bill Page. At one end of the continuum, women are battered, raped, and intimidated. At the opposite end, women and men exist in a state of "colleagueship," in which they treat one another as equals, share feedback, and have flexible role options. In between these two extremes, women and men struggle for dominance. For example, a male might take a very paternalistic attitude toward a female, and she might yield. In a clinic setting, a physician could say in a patronizing tone, "Now, now, Mrs. Jones, no more questions. Just go home and take your medicine like a good girl." In a classroom, a professor could respond to a female student's question by saying, "Everyone else seems to get it, what's the matter with you?" When language is used in these ways, it's a rudimentary form of violence.

I know of hospitals in which female personnel, both nurses and staff, are harassed by staff physicians, and I've worked as a consultant in a hospital where harassment took place. Unfortunately, when I informed those in power that harassment was occurring in their institution, they didn't want to deal with it; they wanted to sweep it under the rug. Institutions perpetuate violence by refusing to deal with it. Gender-responsible leadership has to do with intervening, whether the harassment takes place in an institution or a clinic, or whether it occurs in the physician-patient relationship or in the medical school classroom. Ignoring harassment is tantamount to condoning it.

Minnesota Medicine: Are violence and intimidation in working relationships sometimes related to culture and ethnicity, as well as gender?

Van Nostrand: Yes. I should clarify that gender issues are confounded by other factors. We also must acknowledge differences of status, race, ethnicity, culture, and personality. It's not fair to say that every negative interaction is related to gender. Nevertheless, if racism, ageism, or other "isms" are contaminating a situation, we also must consider the possibility of sexism. Many times a woman will be labeled for her gender rather than her qualifications. For example, a judge might say to a female attorney, "How can such a pretty little thing be a district attorney?" He sees her appearance before he sees her competence. Sexism is a definite factor here.

Minnesota Medicine: What do you ultimately hope to achieve through your work?

Van Nostrand: What I try to do in my book and in my work is raise awareness, especially among leaders, so that we consider gender a factor when we analyze interactions. My goal is for all people to be acknowledged for who they are and respected as individuals without being labeled by the color of their skin, gender, or anything else. MM

"Gender-Responsible Leadership: Detecting Bias, Implementing Interventions," by Catharine Van Nostrand, is available from Sage Publications, Inc., 2455 Teller Road, Newbury Park, CA 91320-2218; 805/499-9774.

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PERSPECTIVES

In health care reform, *Think of patient comfort, too*

By Arthur Caplan, Ph.D.

My father-in-law, Robert Stojak, recently died of colon cancer. He spent his final weeks in a hospital bed, which afforded me an unwanted but important perspective on how well the health care system deals with terminally ill patients.

First the good news—a good deal of progress has been made in allowing terminally ill patients to control the use of medical technology. Doctors were generally very willing to abide by my father-in-law's wishes about aggressive medical care. He said he did not want any extraordinary forms of life-support or heroic measures, and none were given. It was not hard to get agreement on a "Do-Not-Resuscitate" order once that time arrived. Those who think there are large sums of money to be saved by encouraging the more conservative use of high technology on dying patients may not realize that clinical practice is already moving rapidly in this direction.

Now the bad news. It was not the life-and-death decisions, but the routine, mundane activities of hospital care that were a source of ethical vexation. None of my father-in-law's doctors really wanted to tell him that he was terminally ill.

I finally asked him what he wanted to know and, when he said everything, spent a couple of hours talking about his diagnosis and what he could expect in the time that remained.

Once he got over his shock and sorrow, he went so far as to tell me about his will and what he wanted in the way of a funeral, since he was very concerned that his death not be a burden to his wife and family.

Those in white coats are not the only folks who have a hard time addressing the subject of death. When the topic of hospice or home care arose, I told my mother-in-law to call her church to find out how to make arrangements.

Despite the fact the hospice was church-affiliated, local church officials did not have a clue about what to do. I asked other clergy about hospice when they came to visit, and they, too, were at a loss. There is absolutely no excuse for leaving talk of hospice and home care for the dying to doctors.

The doctors and nurses were, on the whole, good people who did an outstanding job of caring for their patients. But our hospitals are ridden with microethical problems that grate incessantly on a patient's and family's nerves.

The delivery of three meals a day for weeks to a man who could not possibly eat a morsel would have been funny if it were not so sad. Chairs that would support a visitor comfortably for an hour when they needed to be occupied eight or 10 hours a day drove me nuts. Promises to be back in a minute to do something were followed by mysterious, unexplained disappearances that stretched into hours, leaving many a family member seething.

The major source of these little irritants is that doctors and nurses are too busy. The pace they follow creates an environment that is as caustic to human feelings as cancer is to the human body.

It sometimes took a busy nurse more than half an hour to administer a shot to relieve pain. Senior physicians spend less than a minute in a patient's room when they visit, and they are too harried to visit very often. A family member with a question stands a much better chance of finding the doctor by hanging out near an elevator rather than by waiting in the patient's room.

A good rule to follow about hospitals is never, ever go alone. If you are very ill, someone needs to be present to act as your advocate, gofer, and confidant. A good corollary to follow is don't go on a weekend. Staffing drops to a minimum, and students are in charge.

The work level of big hospitals creates a huge problem for the coordination of information about each patient's diagnosis and treatment plans. Nurses coming on a new shift, or who are part-timers working on a weekend, often have no idea of the patient's status or what the doctor is planning to do next.

The doctors, themselves, are not always on the same page. It is easy to see why, since beepers, pagers, and answering services are always beckoning. When calls are not returned for seven or eight hours, then work load levels have risen well beyond what patients have a right to expect.

> "As we begin the task of reforming our health care system, we owe it to patients to try to make a system that is not only more cost-effective, but also a lot more user-friendly."

One of the nastiest problems in hospitals is the continuing parade of persons who have tasks to do in the patient's room. Garbage is taken out, mail delivered, newspapers hawked, cable TV adjusted, food brought in, vital signs measured, baths administered—the parade of humanity is uncoordinated and never-ending. My brother-in-law and I counted 24 entries alone in one eight-hour weekday shift. Add to this stream of humankind the fact that lights and noise in a room with two sick people in it rarely dim, and you have created a perfect sleep-free zone.

Backbreaking work loads in combination with cold, institutional environments can go a long way toward defeating the best of intentions and the most indomitable of spirits. As we begin the task of reforming our health care system, we owe it to patients to try to make a system that is not only more cost-effective, but also a lot more user-friendly. MM

Arthur Caplan is a medical ethicist and director of the Center for Biomedical Ethics at the University of Minnesota. He is also a professor in the university's Department of Philosophy and Department of Surgery.

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COVER STORY

Gene
Therapy

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Gene Therapy

MINNESOTA RESEARCHERS PIONEER NEW PROTOCOLS

The first human gene therapy trial, performed in September 1990 at the National Institutes of Health, captured the imagination of physicians, scientists, and the public alike. Headlines heralded the arrival of a new era of medicine—the age of genes. Researchers poured into the new field from molecular biology and medical genetics. The NIH's Recombinant DNA Advisory Committee, which approves gene therapy protocols, soon found itself handling dozens of applications. To many, gene therapy offered hope that cures for the most intractable diseases, from inherited disorders to cancer, would soon be found.

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Diana Kenney

Three years later the field is developing rapidly, and medical centers across the country are investing in the technology's promise. Currently, the only researchers in Minnesota who are engineering viruses in preparation for their use in clinical gene therapy trials are the University of Minnesota's R. Scott McIvor, Ph.D., of the Institute of Human Genetics, and his collaborators. But the University is supporting the expansion of gene therapy research, as is the Mayo Clinic in Rochester, and Minnesota has the potential to become a major center for gene therapy within the decade.

"Everyone who's involved in gene therapy has a tremendous amount of optimism about it," says Chester Whitley, M.D., a collaborator with McIvor from the university's Department of Pediatrics. "Right now, we're doing the nuts-and-bolts work that it takes to get started."

R. Scott McIvor, Ph.D.

Initial Gene Therapy Trials

Some of the research the university is conducting is based on the NIH experiments that broke the ground for gene therapy. The subjects of these initial experiments were two young girls suffering from a rare genetic disorder, severe combined immunodeficiency disease (SCID). Both girls were born without the gene coding for adenosine deaminase (ADA), an enzyme that is critical for immune system function. Lack of ADA leads to extensive destruction of the T-lymphocyte population, and if left untreated, ADA-deficient patients die of severe infections.

A research team led by W. French Anderson, M.D., then at the National Heart, Lung and Blood Institute, and R. Michael Blaese, M.D., of the National Cancer Institute, developed the gene therapy protocol for ADA deficiency. T-lymphocytes were first removed from the patients, then fitted with the missing ADA gene by a process called transduction, and finally infused back into the children.

Results of the trials have been encouraging. The two girls attend public schools and have no more than a normal number of infections. Follow-up studies indicate that the gene-corrected lymphocytes continue to produce enzyme for months after infusion into the patient and also live three to five times longer in the body than ADA-deficient cells.

Most important, no adverse side effects have been observed in the human gene therapy trials. The ADA protocol used a modified retrovirus, or "vector" (see sidebar, page 14), to deliver the ADA gene into the patient's lymphocytes. Since the vector inserts the therapeutic gene into a random place in the cell's chromosome, there is risk of it activating an oncogene or deactivating a tumor suppressor gene. But since the first ADA trials, more than 75 subjects have received gene therapy for a variety of diseases, and none have shown evidence of cellular disruption caused by retroviral gene transfer.

A major drawback of the ADA protocol and many others is that cell infusions must be repeated every three to five months, since T-lymphocytes don't live long in the body. But researchers hope to develop one-shot cures by transferring genes into the stem cells of bone marrow, which are the immortal progenitor cells of lymphocytes and all other blood cells. Theoretically, transduced stem cells could provide a lifetime supply of the products of transferred genes. However, stem cells have proven exceedingly difficult to isolate and transduce, to the point where the effort to do so has become molecular biology's "holy grail."

Surprisingly, the big story in gene therapy is its application to cancer. Since the early 1960s, when molecular biologists first envisioned virus-mediated gene therapy, its primary application was expected to be the treatment of genetic disease. But as of April 1993, 16 of the 21 approved protocols target various forms of cancer, while only four provide therapies for genetic disorders (ADA deficiency, cystic fibrosis, hemophilia B, and familial hypercholesterolemia).

The safety risks of gene therapy may explain this trend. "People have been concerned all along about the possible deleterious effects of gene therapy, especially producing cancer," says John Kersey, M.D., director of the Bone Marrow Transplantation Program at the University of Minnesota. "But if you start out with patients who already have cancer and who, unfortunately, have relatively short life spans, you are not so worried about them developing a secondary malignancy."

The large number of people afflicted with cancer, as compared with the rare incidence of most inherited diseases, is another factor. "Cancer is a major problem, and people are thinking about all kinds of approaches to its treatment," says Kersey.

The University of Minnesota Connection

McIvor laughs as he calls himself Minnesota's "Gene Therapy Man," but if anyone deserves the title, it is he. McIvor, director of the university's gene therapy program, was researching the molecular biology of the ADA gene at Genentech Inc. in San Francisco when ADA deficiency emerged as the prime candidate for the first

Recombinant Retroviruses as Gene-Transfer Vehicles

R. Scott McIvor, Ph.D.

Gene therapy has advanced greatly in recent years, in large part because techniques have been developed for efficient and stable delivery of therapeutic genes into human cells. Most gene therapy trials already initiated (and many of those pending) use recombinant retroviruses as gene-transfer vehicles. Retroviruses have long been studied as agents that shuffle gene sequences in cells, and the ability of these viruses to predictably and stably introduce their genome into host cells has made them attractive as a vector system for gene transfer.

What essentially must be done to generate a retroviral vector is to engineer a mammalian cell line that contains two additional sequences introduced into its chromosomes. The first sequence is responsible for producing the retroviral proteins (gag, pol, env) necessary for packaging the virus. The DNA sequence is modified, however, so that the proteins cannot recognize the RNA message responsible for their production. As a result, the packaging is interrupted and the viral replicative cycle is cut short. Cells containing these modified sequences thus produce the retroviral proteins but do not produce any infectious virus.

The second sequence introduced into the cells consists of a retroviral genome in which the viral protein coding sequences have been removed and replaced by the therapeutic gene (or genes) of interest. This sequence contains all the retroviral sequences necessary for viral replication, as well as the packaging sequences, so that the retroviral proteins produced from the first sequence can recognize the retroviral vector RNA and package it into a virus particle that is released from the cell's surface.

This method establishes mammalian culture cell lines that produce millions of virus particles per milliliter of culture fluid. Each virus is capable of binding to the surface of a human cell, converting its RNA genome (containing the therapeutic gene) into DNA, and inserting the DNA into the chromosomes of the host cell. The virus contains none of the retroviral protein coding sequences, so once the retroviral vector DNA has integrated into the host cell, the replicative process ends and the virus can no longer spread. Retroviral vectors can, therefore, be used to introduce new gene sequences into human cells without establishing an infection (the virus will not spread from one cell, to the next, to the next, and so forth). From the time of the first gene therapy trials, retroviral vector stocks intended for human use have been scrupulously examined for the presence of replication-competent virus—the primary safety consideration in the use of recombinant retroviruses for human gene therapy.

R. Scott McIvor is an associate professor of laboratory medicine and pathology at the University of Minnesota and director of the university's gene therapy program at the Institute of Human Genetics.

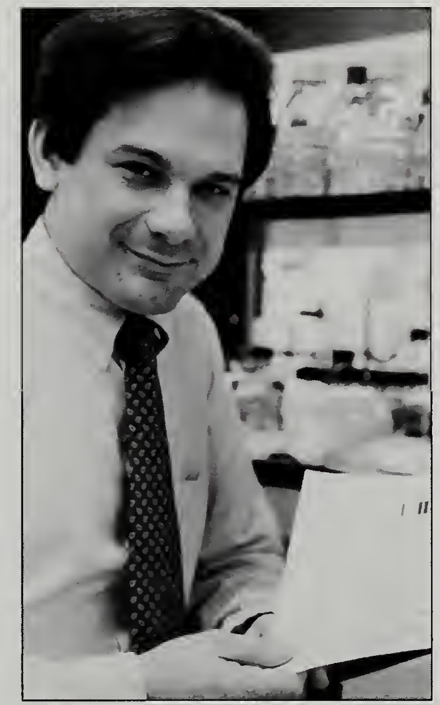
gene therapy trials. The university's Institute of Human Genetics recruited McIvor in 1986 specifically to work on gene therapy, and in 1987 he established the Minnesota Gene Therapy Study Group to advance the technology in Minnesota. In 1988, while yet a young assistant professor, McIvor was asked to serve a four-year term on the NIH's Recombinant DNA Advisory Committee, which reviewed the NIH's first human gene transfer protocol, submitted by W. French Anderson and his collaborators. The process was a "trial by fire," says McIvor, as it took months of heated scientific and political battles before Anderson was granted permission to begin.

Currently, McIvor and his collaborators have four gene therapy protocols in the pipeline. The work that is furthest along is a protocol by McIvor and Whitley to treat Hunter syndrome; they expect to start clinical trials within a year-and-a-half.

Hunter syndrome is a severe genetic disorder affecting about one in 78,000 male births. "It's always a life-threatening disease," says Whitley. "Even in the mildest cases, the affected male doesn't live beyond 30 to 40 years." Mutation of the Hunter gene results in deficient production of the enzyme iduronate-2-sulfatase, which leads to the build-up of incompletely degraded lysosomal storage materials in the tissues. Clinical manifestations include mental retardation, airway obstruction, skeletal deformation, and cardiac disease.

"At present, there are no satisfactory therapies for Hunter syndrome," Whitley says. "Bone marrow transplant has shown the general principle that getting the enzyme [iduronate-2-sulfatase] into the patient can produce some important metabolic and physiologic changes. But as a therapy, bone marrow transplant is still limited. The big issues are getting enough enzyme into the patient and having it cross the blood-brain barrier so we can prevent the mental retardation that is associated with severe forms of the disease. With gene therapy, we have the potential to alter the cells to make more enzyme, and perhaps to make the enzyme more able to cross the barrier."

Currently, McIvor and Whitley are gathering preclinical data to propose treatment by a procedure similar to the ADA protocol. Lymphocytes from Hunter syndrome patients will be removed, transduced with the corrective gene, and reinfused at regular intervals. McIvor and Whitley are currently working to optimize the transduction and expansion of lymphocytes in culture and obtain sufficiently high levels of enzyme expression. Like many other researchers, they eventually hope to manipulate the patient's bone marrow stem cells rather than lymphocytes to avoid the need for repeated infusions.


Chester Whitley, M.D.

McIvor also is in the early stages of a gene therapy protocol to treat purine-nucleoside phosphorylase (PNP) deficiency, a condition that causes T-cell immunodeficiency disease in humans. "Currently, we're involved with extensive vector development to get higher levels of PNP expression," says McIvor. "We're also doing some experiments to see if infecting the cells with vectors changes the immunological character of the cells."

Also in the works are two protocols for cancer treatment. The first is a scheme to improve conventional therapy for leukemia. "Often, leukemia patients are administered a high dose of chemotherapy or radiotherapy to kill tumor cells. This treatment lethally damages their hematopoietic system, so they have to have a bone marrow transplant to survive," McIvor says. "But the main problem with survival after the transplant is tumor relapse. Antineoplastic agents are usually not administered at that point, because they would threaten the marrow graft. What we'd like to do is allow the clinician an opportunity to administer additional chemotherapy post-transplant."

McIvor proposes to introduce a gene that confers resistance to a chemotherapeutic agent, methotrexate, into the bone marrow cells before the transplant. Subsequent chemotherapy would, therefore, affect the tumor cells but not the marrow cells. "No one has been able to find a way to discriminate effectively—to kill the tumor cells and spare the normal ones," says Kersey. "McIvor's gene therapy approach might be beneficial."

Finally, a collaboration between McIvor and four researchers in the university's Department of Pediatrics (Bruce Blazar, M.D., Paul Orchard, M.D., Emmanual Katsanis, M.D., and Michael Boyer, M.D.) is an effort to enhance anti-tumor immunity in cancer patients by the

Ethical Concerns Surrounding Gene Therapy

Diana Kenney

Much of the excitement surrounding the advent of gene therapy is due to the intense public scrutiny the technology has weathered. The 1990 National Institutes of Health trials culminated nearly 30 years of high-profile debates, not only on the risks and benefits of gene manipulation, but also on its social implications.

The debate has centered on maintaining an ethical distinction between altering the genes of human germ cells (sperm, egg, and early embryo cells) and the genes of somatic cells (all other body cells). Genetic alterations to an individual's germ cells would be passed on to descendants, taking medicine into the realm of treating yet-to-be-born patients. Since informed consent cannot be obtained from the unborn, critics argue that germ-line gene therapy bears a close resemblance to eugenics—policies to improve hereditary qualities by genetic control. Eugenics has historically met with great social resistance, especially since Nazi Germany's disastrous efforts to implement eugenic ideals.

Social concerns, as well as technical prematurity, have led to a ban on germ-line gene therapy in humans. The NIH's Recombinant DNA Advisory Committee will currently entertain proposals for somatic-cell gene therapy only. But germ-line gene transfer has been successfully achieved in mice, and many researchers believe an attempt in humans will soon be feasible. As technical accomplishments bring that day ever closer, social and ethical resistance to germ-line intervention is on the wane.

"I think germ-line therapy as a treatment of disease, far from being unethical, would be morally obligatory," says Arthur Caplan, Ph.D., director of the Center for Biomedical Ethics at the University of Minnesota. "I can't see why anyone would want people to suffer from cystic fibrosis if there is a way to remove it from the population. That's assuming there is no hidden, deleterious cost to removing that particular gene from the gene pool."

What concerns Caplan more is that somatic-cell or germ-line gene therapy could be used for frivolous purposes. The same technology that provides critical genes to seriously ill patients could also provide genes to enhance traits such as skin tone, muscle bulk, or hair growth. "I think it's unethical to begin enhancement engineering when we haven't delivered everybody a minimal amount of decent health care," Caplan says. "The primary goal of medicine should be the alleviation of disease and disorder. Anything beyond that is secondary and ought not to be engaged in until the primary mission is done.

"But this is going to be a tough one," he continues. "Large areas of health care already look like they are in the enhancement area, whether it's psychoanalysis or sports medicine or cosmetic surgery for aesthetic purposes. I would say they got there more by creep than by conscious decision, but the cat's already out of the bag on this one. And I challenge that philosophy of medicine and the allocation of resources therein."

As genetic intervention moves out of the experimental phase and approaches widespread use, bioethicists are analyzing which genetic tests should be offered in the counseling setting. "The presumption has always been that genetic counselors have the medical and health care expertise, and the client has the moral expertise," says Dianne Bartels, administrative director of the Center for Biomedical Ethics. "But we are starting to question whether clients can really have anything they want. The current debate is on whether we will do genetic testing for gender selection. A lot of centers are now saying 'no.' "

Caplan agrees with that choice, saying "The last time I looked, gender wasn't a disease."

The development of gene therapy, especially enhancement and germ-line therapy, raises major ethical concerns, such as parental autonomy in reproductive decisions, informed consent, and resource allocation, says Bartels. "These issues have remained unresolved because they ask us to define the boundaries of medicine."

transfer of cytokine-producing genes. Cytokines are naturally occurring protein substances, some of which have shown effectiveness in activating the immune system.

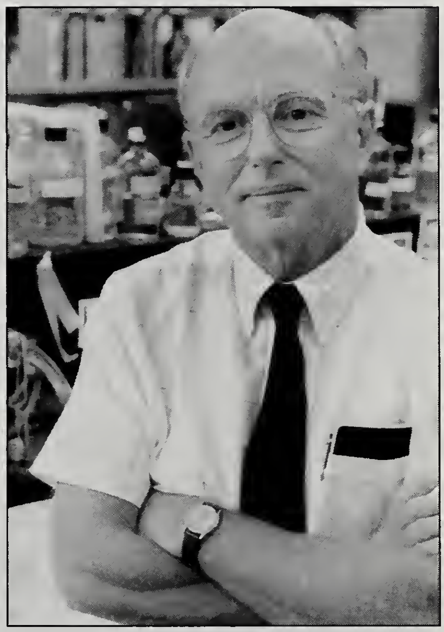
The team is considering two approaches. The first is to transfer cytokine genes into the patient's lymphocytes to stimulate the lymphocytes to seek out the tumor cells, recognize them, and destroy them. The second is the concept of a tumor vaccine, where tumor cells are removed from the patient, transduced with a cytokine gene, and reinfused. "There you've got the tumor cell itself producing an immunostimulatory molecule," says McIvor. "This might attract lymphoid cells to mediate an immune response better than just a normal tumor cell. And perhaps this stimulated tumor response would recognize not only the cytokine-secreting tumor cell, but other tumor cells that are lurking in the patient, as well, so you have a systemic response."

The group has constructed a retroviral vector containing an interleukin-2 cytokine gene and is testing its activity in a variety of tumor cells. "All the cells we are working with are transducible with the vector," says Orchard. "And all of them make some IL-2, but that seems to be dependent on the particular cell. The lymphoid cells of lymphoma make a fair amount of IL-2. Neuroblastoma doesn't make quite as much. Myeloid leukemia cells make even less. So this cytokine may be more appropriate for some tumors than for others. We'd like to make some comparisons using other cytokine genes."

Scientists have been seeking ways to augment antitumor immunity for nearly a century with only limited success, resulting in guarded optimism that the gene therapy approach will hold the key. "It remains to be seen if we can impact cancer in a major way by stimulating the T cells to recognize tumors," says Kersey. "Gene therapy will be part of the solution. It will also raise a lot of new questions, just as new approaches always do."

Establishing Gene Therapy in Minnesota

As McIvor and his colleagues gather pre-clinical data, the university is laying out plans to establish the facilities needed to conduct clinical trials, including a laboratory for making vectors that are certifiable to inject into humans. The new facilities are expected to jointly serve researchers in the university's Institute of Human Genetics, Blood Bank, and its new Cancer Center, which begins construction in early 1994. "We need to make a long-term commitment to gene therapy for it to have an impact on treating disease," says Kersey. "As an institution, we are in the process of getting organized to do that."



John Kersey, M.D.

At the Mayo Clinic, researchers are currently exploring gene therapy collaborations with institutions that already have retrovirus facilities. In addition, Mayo recently formalized a commitment to the in-house development of molecular medicine, including gene therapy.

"After broad discussions at all levels, we feel that the molecular diagnosis and treatment of disease is going to be very important to a modern, state-of-the-art, integrated group practice such as we have here," says Matthew Ames, Ph.D., director for research at the Mayo Clinic. "We've recently approved an institutional approach to molecular medicine that involves a major commitment of new laboratory space and a significant number of new positions," he says.

"Gene therapy, in our minds, is an important approach right now, but there are also other methodologies in molecular medicine that are going to provide clues for better approaches to treatment," he adds. "We plan to coordinate complementary kinds of expertise to bring the whole integrated program forward."

Although medical centers recognize the growing significance of gene therapy, the technology faces the practical constraint of cost. A clinical trial currently costs about $300,000 per patient, not including the initial investment to construct retrovirus facilities.

"Acceptance of gene therapy is going through a metamorphosis right now," says Orchard. "A few years ago, the major questions were, 'Is gene therapy feasible? Is it relatively safe?' As it looks like we're getting positive answers to those questions, we're now moving into the realm of applying conventional standards. The questions now are, 'Is gene therapy going to be applicable on a large scale? How does it compare to traditional therapies? And is it going to be cost effective?' "

Most observers predict gene therapy will be limited to the research setting for another decade, but believe it will eventually see widespread application. "There will be centers of expertise for gene therapy, just as there are now for liver or bone marrow transplant," says Whitley. Improved delivery methods, such as the in-vivo injection of genes, are expected to replace the viral transduction of cells in culture. Eventually, easily administrable drugs containing corrective genes will be in the private practitioner's hands.

"Gene therapy is exploding right now," says McIvor. "This is just the beginning." MM

Diana Kenney is a free-lance writer in Minneapolis. She recently graduated from the University of Minnesota with a master's degree in the history of science and technology. She wrote her master's thesis on the history of gene therapy.

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The 1993 Legislative Session

A Successful Year for the MMA

David Renner

Many political pundits have christened the 1993 legislative session a "do-nothing session," filled with more scandal and partisan fighting than real substance. Although this description may be accurate for the Legislature's overall accomplishments (or lack thereof), the Legislature was very busy and productive in the area of health care policy. In health care reform and cost containment, which were again top legislative priorities, the debate centered on making the health care delivery system more efficient while maintaining the top level of quality Minnesotans have come to expect.

In the midst of health care reform debate was the Minnesota Medical Association. The MMA was a major participant every step of the way—from the first Minnesota Health Care Commission meeting last August, through many hours of task force, commission, and advisory committee meetings, right up to the Legislature's adjournment on May 17, 1993.

By most accounts, the MMA had a successful year, and not just by the number of wins and losses. More important, policymakers saw the MMA as a key decision maker that needs to be involved in state health care reform—a marked difference from how policymakers viewed the MMA as recently as last year. Many legislators commented that they were impressed with the association's ability to comprehend the need for change and participate in the reform process.

> "This session, policymakers saw the MMA as a key decision maker that needs to be involved in state health care reform—a marked difference from last year."

This article summarizes legislation of importance to the MMA and its members (see also "ISN Legislation Changing Health Care Delivery," page 27, and "Durable Power of Attorney for Health Care," page 23). On March 10, 1993, the MMA Board of Trustees established priorities for the association's legislative resources. The Board identified seven areas on which to devote a majority of the MMA's efforts, and the association was successful in accomplishing its goals in most of these areas.

Health Care Reform

This year's health care reform debate continued what the Legislature started when it created the Minnesota Health Care Commission in 1992. The commission developed a report that resulted in legislation to establish Integrated Service Networks. This legislation (Chapter 345) is intended to promote ISNs and to control health care spending growth for non-ISNs through a regulated all-payer system. (For a more detailed discussion of ISNs, see page 27.)

The development of ISNs raises unanswered questions, which causes trepidation among many providers. However, it also creates opportunities to be involved in changes to Minnesota's health care delivery system. The MMA intends to be involved in such opportunities.

Provider Tax

Chapter 345 includes two changes to the 2 percent provider tax, both of which the MMA considered high priorities. Although the association maintains that the provider tax is an inappropriate and inadequate funding source for health care reform, it did not aggressively pursue a repeal because legislators from both parties were adamant that they would not repeal the tax this year. Instead, the MMA focused its efforts on assuring that providers would be able to pass the tax through to third-party payers and that the tax would not be an unworkable administrative burden.

The first change included in Chapter 345 allows providers to add 2 percent of the cost of services to bills sent to third-party payers. The payers, if state-regulated, are required to pay the additional cost. The legislation does not mention whether self-insured payers exempted by ERISA must pay the tax, but the legislation does contain a provision stating that providers may collect the tax through other means, including increased fees.

The second change to the provider tax will affect all physicians who treat Medicare patients. The legislation exempts from taxable gross revenue all revenue received from Medicare recipients for Medicare-covered services. Last year's law exempted from the tax all Medicare, Medicaid, and MinnesotaCare payments received directly from the government. However, Medicare revenues from non-government payments, such as Medicare copayments and deductibles, payments from Medicare HMO products, and payments from non-assigned claims, were taxable. The old requirement made it nearly impossible for providers to calculate which revenues were taxable. This year's change exempts all Medicare payments, regardless of the source.

Anti-Violence Measures

The Legislature adopted several anti-violence measures this session, many of which are intended to reduce the number of gun-related injuries. All the measures are consistent with the MMA's emphasis on creating a violence-free society by the year 2010.

The Legislature enacted a new seven-day waiting period prior to the purchase of any military assault-type weapon, such as an AK-47 or other rapid-firing weapon. Also, anyone convicted of domestic assault with a firearm is prohibited from possessing an assault-type weapon.

The Omnibus Crime Act creates new crimes for drive-by shootings, the negligent storage of firearms, the reckless discharge of firearms, the possession of devices to convert firearms into rapid-firing guns, and the possession of rifles or shotguns in public. In addition, the law specifies that law enforcement officials can seize guns related to drug crimes, and minors can lose their driver's licenses if they are caught with guns in school. The law also increases penalties for repeated handgun violations.

The law designates stalking as a crime. A person can now be convicted for continually stalking a victim, even if the stalker does not assault the victim. The law is designed to assist enforcement agencies in intervening prior to the occurrence of physical harm.

> "The Legislature adopted several anti-violence measures consistent with the MMA's emphasis on creating a violence-free society by the year 2010."

The Legislature adopted a major anti-violence measure this year in response to increased violence and obstruction at clinics and hospitals that provide family planning and abortion services. A person who physically obstructs access to a medical facility can be charged with a gross misdemeanor. The legislation does not prohibit people from peacefully picketing, protesting, or distributing information.

Optometric Prescribing

For the eighth straight year, optometrists pursued legislative authority to expand their scope of practice to include the prescribing of topical therapeutic drugs. Despite opposition from the MMA, as well as the Minnesota Academy of Ophthalmology and the Minnesota Academy of Family Physicians, the legislation was passed and signed into law. Beginning August 1, 1993, certified optometrists can prescribe and apply topical legend drugs, including drugs to treat glaucoma.

Before an optometrist can prescribe therapeutic drugs, the Board of Optometry must certify the completion of at least 60 hours of study in general and ocular pharmacology and at least 100 hours of study in the examination, diagnosis, and treatment of eye conditions. The optometrist also must complete a two-year supervised clinical experience and pass a nationally standardized examination approved by the board.

An optometrist who is certified to prescribe must notify the Board of Optometry within 10 days of any adverse reaction to a topical legend drug. A physician who is aware of such an adverse reaction must report it to the Board of Medical Practice.

The final provision in this act defines the use of lasers and laser-assisted devices as invasive procedures and prohibits their use by optometrists.

Physician License Surcharge

Another MMA priority this year was to exempt retired physicians and others not actively practicing medicine from the $400 physician license surcharge. Because legislators were concerned that Minnesota would lose a valuable volunteer resource if these individuals did not renew their licenses, they adopted legislation in the one-day special session held May 27, 1993, to exempt certain physicians from the surcharge.

The exemption, which is effective for licenses renewed after April 1, 1993, applies to qualifying physicians who are retired, disabled, on extended leave of absence, unemployed, or who only provide free care. Physicians can apply to the Department of Human Services for a waiver from the surcharge. Application forms will be sent July 1, 1993, for those whose licenses are renewable between April 1 and September 30. Application forms will be sent January 1, 1994, to physicians whose licenses are renewable between October 1 and March 31.

Anti-Smoking Measures

The results of this year's anti-smoking efforts were mixed. A success came early in the session with the passage of legislation prohibiting smoking in all day-care settings. Minnesota law already prohibits smoking in commercial day-care centers, and smoking will be prohibited in home day-care settings effective March 1, 1994, allowing smokers time to "kick the habit."

An anti-smoking measure that early on met with success ultimately did not reach the governor's desk. The Minnesota Health Care Commission had recommended increasing the state cigarette tax by 23 cents per pack. The Senate passed the tax as part of the Omnibus Tax Bill, but the tax increase was not adopted as part of the final reform bill. However, the MMA considers it a positive sign that the Legislature attempted to tie the cost of smoking directly to smoking-related health care costs—a shift in thinking that should help future MMA efforts to achieve a smoke-free society by the year 2000.

Medicare Assignment

Unfortunately, the MMA was unsuccessful in its final high-priority legislative battle. It could not convince the Legislature to repeal the prohibition of balance billing for those Medicare patients financially able to pay. The 1991 Legislature initiated a phaseout of balance billing that requires providers to accept assigned Medicare payments as full payment by 1996. The MMA met with legislators and representatives of senior groups to discuss "means testing," which would prohibit balanced billing of individuals earning less than 250 percent of the federal poverty level. Although many legislators agree there is a need to reduce the amount of cost shifting caused by inadequate Medicare reimbursements, the MMA was unable to gather broad-based support for removing the prohibition.

Conclusion

The score card may show some losses, but overall the MMA had a successful legislative year. The association continues to analyze the impacts of health care reform, inform its members as best possible, and communicate its positions to legislators. As Minnesota struggles to assure quality health care while controlling health care costs, the MMA will be participating every step of the way. MM

David Renner is director of State Legislation at the Minnesota Medical Association.

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Durable Power of Attorney for Health Care

Legislature Enacts Specific Format and Guidelines

Gayle Dixon, J.D.

The Minnesota Legislature has added another legal document to the flurry of paperwork surrounding health care. Minnesota now has a statutory basis for the document referred to as "durable power of attorney for health care," which is used for designating an agent to make health care decisions when a patient becomes incapacitated.

Living wills and other forms that specify care when patients are unable to make or communicate health care decisions have been available for some time, but technically, these documents only become effective when a patient is terminally ill. As a result, a gap in legal authority has existed for patients unable to make medical decisions even though their medical condition would indicate they are likely to live a normal life span. In Minnesota, this gap led to protracted litigation over authority to make health care decisions in the case of Sharon Kowalski, an adult lesbian incapacitated in an automobile accident; her female companion contested her guardianship, which was granted to the parents. Such situations now can be avoided through the durable power of attorney for health care.

Standard Format

The new statute suggests a format for the durable power of attorney for health care. Unlike the durable power of attorney for business matters, the durable power of attorney for health care does not have a specific statutory short form, but it does require that the form substantially comply with the statute's recommended language. Any form will be valid if it specifically authorizes the agent to make health care decisions and if it substantially complies with the suggested format (see sidebar, page 24).

As with other powers of attorney, if a durable power of attorney for health care is executed in a jurisdiction outside Minnesota and meets the requirements for such a document in that jurisdiction, the document is enforceable in Minnesota so long as it is consistent with state law.

> "Health care providers relying on the durable power of attorney have several protections from liability."

The individual who executes the durable power of attorney (the "principal") must sign and date the durable power of attorney form, unless he or she is physically unable to do so. If the principal cannot sign, some person acting in the principal's presence and at his or her direction must sign instead. The document also must be signed by two individuals age 18 or older, each of whom saw the principal sign the document or saw the principal acknowledge the signature. Alternatively, the principal could simply sign the document before a notary public. The principal must be 18 or older to execute a durable power of attorney for health care.

Restrictions on Practitioners and Agents

The individuals asked to make health care decisions (the "agents" or "attorneys in fact") must meet three conditions to act as agents: they must be 18 or older; they must be designated by the principal in a power of attorney to make health care decisions on the principal's behalf; and they must consent to act as agents.

Minnesota's statute includes an optional provision to designate one or more alternative agents to act if the named agent is unable, unavailable, or unwilling to serve. The statute also includes specific instructions to the agent or alternative agents, as well as limitations on their right to receive, review, and consent to the disclosure of the principal's medical records. The provisions further state limitations on the nomination of the agent as guardian or conservator, should petitions for appointment be brought in probate court.

Medical personnel should be aware of the restrictions the durable power of attorney statute places on their ability to act as agents or as witnesses. Health care providers attending the principal, as well as employees of health care providers attending the principal, are prohibited from acting as agents unless they are related to the principal by blood, marriage, registered domestic partnership, or adoption. Also, only one such health care provider or employee may act as a witness for the execution of the durable power of attorney. Likewise, agents may not act as witnesses.

The Agent's Obligations

The agent may have a personal obligation to make health care decisions for the principal, but the agent is not legally required to make such decisions. However, the agent does have a legal obligation to act in accordance with the principal's desires. These desires may be written in the durable power of attorney for health care, in a living will, in an advance psychiatric directive (under Minnesota Statute 253B.03), or in other communication from the principal to the agent. In the event of conflicting information between various health care documents, the most recent document is effective. If the principal's wishes are not known and cannot be determined, the agent has a duty to act in the principal's best interest, taking into account his or her overall medical condition and prognosis. However, the agent is prohibited from consenting to a voluntary commitment for psychiatric care.

The Practitioner's Obligations

If an agent directs the provision of health care, nutrition, or hydration, and the treatment has the significant possibility of sustaining the principal's life, the health care provider must take all reasonable steps in his or her capacity to comply with the request or must transfer the patient, even on an emergency basis, to a health care provider who has the capacity to comply with the request. If a practitioner is unwilling to provide the directed health care, the facility should transfer the patient to another practitioner who is willing to provide the care, but the facility must take all reasonable steps to ensure that the directed health care is provided until the transfer is made.

A practitioner's legal obligation to a patient who refuses, has refused, or is unable to pay for medical care is unaltered, regardless of what the document says.

Since there is no requirement that physicians file a durable power of attorney for health care with a patient's medical records, practitioners should determine whether the patient's document has been revoked when the patient is admitted to a health care facility. The patient can revoke a durable power of attorney for health care in a number of ways. The patient may destroy the document or may direct someone else to destroy it. The patient may prepare a written, dated statement or may verbally revoke the document in the presence of witnesses (the witnesses do not have to be present at the same time). Or, the patient may create a subsequent durable power of attorney inconsistent with the first durable power of attorney. In addition, the appointment of a spouse or domestic partner is automatically revoked in the case of a divorce, annulment, legal separation, or a proceeding for the termination of a registered domestic partnership, unless expressly stated to the contrary in the durable power of attorney. Considering the frequency with which parties may begin such domestic changes then soon reconcile, practitioners should inquire about a couple's status when relying on the spouse or domestic partner as an agent.

Practitioners should be aware of important distinctions between living wills and the durable power of attorney for health care in order to avoid using an inoperative document. If someone without real authority makes health care decisions, the result could be legal battles lasting months or years. The durable power of attorney does not need to be filed in the principal's medical records to be effective, whereas a living will must be filed in the medical record. In addition, the agent in a durable power of attorney must consent to make health care decisions, whereas living wills carry no requirement that the proxy accept the authority, although alternative proxies may be named in the event the first is unwilling or unable to serve.

Legal Protections

Health care providers and agents relying on the durable power of attorney for health care have several protections from liability. First, the principal is presumed to have capacity to execute the document and revoke the document, which is valid unless there is actual knowledge to the contrary. Second, the statute presumes the agent and the health care provider are acting in good faith and in the principal's best interest unless clear and convincing evidence exists to the contrary. The statute defines good faith as "acting consistently with the desires of the principal." If it's impossi-

Recommended Language for Durable Power of Attorney for Health Care

I appoint ... as my agent (my attorney in fact) to make any health care decision for me when, in the judgment of my attending physician, I am unable to make or communicate a decision myself and my agent consents to make or communicate the decision on my behalf.

My agent has the power to make any health care decision for me. This power includes the power to give consent, to refuse consent, or to withdraw consent to any care, treatment, service, or procedure to maintain, diagnose, or treat my physical or mental condition, including giving me food or water by artificial means. My agent has the power, where consistent with the laws of this state, to make a health care decision to withhold or stop health care necessary to keep me alive. It is my intention that my agent or any alternative agent has a personal obligation to me to make health care decisions for me consistent with my expressed wishes. I understand, however, that my agent or any alternative agent has no legal duty to act.

My agent and any alternative agents have consented to act as my agents. My agents and any alternative agents have been notified that they will be nominated as a guardian or conservator for me.

My agent must act consistently with my desires as stated in this document or as otherwise made known by me to my agent.

My agent has the same right as I would have to receive, review, and obtain copies of my medical records and to consent to disclosure of those records.

ble to determine the principal's desires from the known information, acting in good faith means acting in the principal's best interest, taking into account the principal's overall medical condition and prognosis. The statute exempts agents from any kind of criminal prosecution or civil liability for any health care decision made in good faith pursuant to the durable power of attorney, unless there is actual knowledge of its revocation.

Although the statute provides caregivers immunity from civil liability, criminal prosecution, and professional disciplinary action, practitioners first must satisfy a number of requirements. Health care providers must believe that the agent's decisions were authorized, and they must have no actual knowledge that the durable power of attorney has been revoked. Also, the health care provider must believe the decisions are consistent with the principal's desires as expressed in the document or otherwise made known. Health care providers who administer treatment necessary to keep the patient alive, despite the agent's decision to withhold or withdraw health care, are not subject to criminal prosecution, civil liability, or professional disciplinary action so long as they promptly take all reasonable steps to transfer the patient to another provider who is willing to comply with the agent's decision.

The statute creates no presumptions for patients who have not executed a durable power of attorney for health care. Lack of a durable power of attorney does not impact an individual's right to refuse, consent to, or withdraw consent to medical treatment on behalf of another. Next of kin would presumably remain the source for medical decision making in situations when this authority has not been clearly given to another through a living will or a durable power of attorney.

Under the statute, patients cannot be forced to execute a durable power of attorney as a condition for admission to a health care facility. Organizations also cannot require patients to execute a durable power of attorney as a provision for treatment or insurance. Life insurance cannot be legally impaired or invalidated when health care is withheld pursuant to the agent's direction. Finally, nothing in the law is to be construed as condoning, authorizing, or approving euthanasia.

The statute considers the following criminal acts gross misdemeanors: interfering with the durable power of attorney without the principal's consent by willfully concealing, canceling, defacing, or obliterating the document; concealing or withholding personal knowledge of the document's revocation; falsifying or forging either the durable power of attorney or its revocation; coercing or fraudulently inducing another to execute a durable power of attorney; or requiring or prohibiting the execution of a durable power of attorney as a condition for insurance or health care services. Under Minnesota law, gross misdemeanor penalties may carry sentences with fines of up to $3,000 and/or imprisonment of 90 days to a year.

When criminal acts cause the principal bodily harm, those criminal acts are considered felonies.

Conclusion

Before the 1993 Legislature enacted this new statute, Minnesotans using durable power of attorney for health care were uncertain whether their documents would be legally binding. Consumers now have a standard format they can use to ensure that their durable power of attorney for health care will be followed and enforced.

Health care providers would be wise to carefully document requests regarding the execution of durable power of attorney documents and their modification. In addition, organizations that are required to comply with the Patient Self Determination Act of 1990 should add durable power of attorney to the material they present to new patients. MM

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ISN Legislation Changing Health Care Delivery

Physicians Should Prepare to Compete in New Marketplace

Michel A. LaFond, J.D.

Integrated Service Networks are the centerpiece of the 1993 legislation adopted in May to supplement last year's health care reform legislation, now known as MinnesotaCare. The new legislation does not provide details for the operation of ISNs, but it does outline a fundamental shift in the future of health care delivery in Minnesota. Starting July 1, 1994, providers who do not operate through Integrated Service Networks will be subject to state regulation and will be required to participate in a new Minnesota all-payer system.

The Legislature (through this new legislation) and buyers of health care services have established new requirements for the integration and coordination of health care services. To meet the new requirements, hospitals are acquiring medical practices and creating physician-hospital organizations, and health plans are acquiring physicians and contracting with medical practice groups. Medical practices, themselves, are merging and are organizing and joining Clinics Without Walls. All of these provider groups contemplate organizing or contracting with ISNs.

Physicians should begin, without delay, analyzing the prospective all-payer system and ISNs and positioning themselves to work with the new regulations and structures to the maximum advantage of their patients and their medical practices.

What is an ISN?

With health care reform proceeding so rapidly in Minnesota, many physicians have been left wondering, "Just what is an Integrated Service Network?" Generally, the new legislation encourages physicians to consider setting up networks of providers throughout the state that will compete with one another. These Integrated Service Networks may be organized as nonprofit corporations or cooperatives and will be subject to regulations comparable to those for health maintenance organizations.

> "Physicians should begin analyzing ISNs and the prospective all-payer system and positioning themselves to work with the new structures."

Although relatively little is known about the prospective function, structure, and operation of ISNs, the Minnesota Health Care Commission did recommend in its initial report to the Legislature that ISNs provide a full array of health services and be accountable for the cost and quality of those services.

This year's legislation does not provide for the implementation of ISNs. Instead, the Legislature has instructed the Minnesota commissioner of health to consult with the Minnesota Health Care Commission and develop a detailed plan by January 15, 1994, for the implementation of ISNs and other reform provisions. The plan will provide for the organization and commencement of ISN operations by July 1, 1994. Providers who do not operate through an ISN will be subject to state regulation and will be required to participate in the new Minnesota all-payer system, the design and requirements of which should be developed by January 1994. A two-year program to phase in the all-payer system will begin July 1, 1994.

Whether physicians and other providers will find it preferable to set up ISNs or to provide services through the all-payer system remains to be seen. What is known is that physicians in Minnesota will be required to provide services either through ISNs or the all-payer system—or both—beginning next year.

Background: Public and Private Reform Initiatives

Integrated Service Networks should not be analyzed in isolation, but rather in relation to recent public and private initiatives to precipitate change in health care delivery. Developing a meaningful perspective of ISNs requires a basic understanding of recent health care reform legislation and new requirements established by buyers of health care services.

The evolution of health care reform

In 1989, former Gov. Rudy Perpich assembled a commission to study health care reform. The Health Care Access Commission identified significant problems with access to and the cost of health care services in a report published early in 1991. That same year, the Minnesota Legislature passed a reform bill, but the governor vetoed the legislation, expressing concerns about funding for the program.

Despite this setback, legislators came back in 1992 again seeking significant health care reform. This time they succeeded. The resulting legislation focused on three objectives: 1) to decrease the rate of growth in health care spending by 10 percent per year for the following five years;

2) to improve quality of health care services; and 3) to improve access to health care services.

Among its many mandates, the 1992 legislation established the Minnesota Health Care Commission, announced the Legislature's determination to substitute regulation for competition, provided an exemption from antitrust laws for certain collaborative activities, included a conflict of interest provision that makes the federal fraud and abuse (anti-kickback) prohibitions and safe-harbor regulations applicable in Minnesota to all patients and providers, and created new medical data collection and reporting requirements. It also required the Minnesota Health Care Commission to develop and present to the Legislature and the governor a plan for achieving the Legislature's three objectives.

On January 25, 1993, the newly created commission presented its report to the Legislature and the governor, recommending the organization and operation of ISNs.

The 1993 MinnesotaCare legislation adopts the commission's recommendation to provide for the organization and operation of ISNs and expands upon previous MinnesotaCare provisions requiring the collection and reporting of certain data and information. The statute grants the commissioner of health rather broad authority to determine which data are to be collected and reported, and it provides for the publication of certain information concerning costs, spending, quality, outcomes, utilization, and other information to promote competition among ISNs and other health care providers. Providers are required to begin collecting data on July 15, 1993, and a data institute and clearinghouse will be established to receive and disseminate the data.

New requirements of buyer coalitions

At the same time health reform legislation was proposed in 1992, the business community sought its own solutions to the health care crisis. The Business Health Care Action Group, a coalition now consisting of 15 large employers/buyers of health care services, asked for proposals from health care organizations to provide comprehensive health care services to a group of some 250,000 employees and dependents. In its request for proposals (RFP), the coalition called for a "fundamentally different" health care delivery system that would meet certain requirements, which are fairly comparable to those of the Minnesota Health Care Commission and the Legislature. The coalition called for a system that would:

- be primary care based;
- deliver high quality services that conform to customer expectations based upon practice parameters, outcomes measurement, and patient satisfaction;
- eliminate unnecessary and inappropriate care;
- objectively document continuous improvement in health care delivery;
- provide an integrated system of care with continuity and coordination among health care providers and coordination between outpatient and inpatient care; and
- provide able management of the totality of care.

> "ISNs may be organized as nonprofit corporations or cooperatives and will be subject to regulations comparable to those for HMOs."

The Business Health Action Group chose a proposal from a joint venture of three organizations: Group Health, a staff model HMO with several hundred employed physicians; MedCenters Health Plan, a group model HMO with approximately 1,000 physicians employed or under contract; and Mayo Clinic, a multispecialty group with approximately 2,000 staff physicians and residents at its facilities in Rochester, Minnesota. At the time the contract was awarded, the joint venture announced that it would spend approximately $10 million to augment its management information systems to meet the RFP requirements.

Although other buyers in the marketplace have adopted the buyer coalition's requirements and have established new standards for the delivery of health care services, both buyers and legislators have identified ISNs as the preferred medium for health care delivery. They have determined that ISNs are better able than existing organizations to facilitate and assure the desired integration and coordination of health care services and the required collection and reporting of data and other information concerning costs, spending, utilization, quality, outcomes, and patient satisfaction.

Organization of ISNs

The Legislature has specified that Integrated Service Networks must be organized as nonprofit corporations or cooperatives, but it has identified few other specific structural or operational requirements. The 1993 MinnesotaCare legislation includes specific ISN requirements for licensing, but it does not delineate distinct functions and operations for ISNs, which will likely remain unclear until additional legislation and regulations are proposed.

The ISN regulatory provisions included in the new statute are comparable to those applicable to HMOs, but some new and different provisions encourage and facilitate the organization of ISNs by health care providers. These provisions either provide for or require:

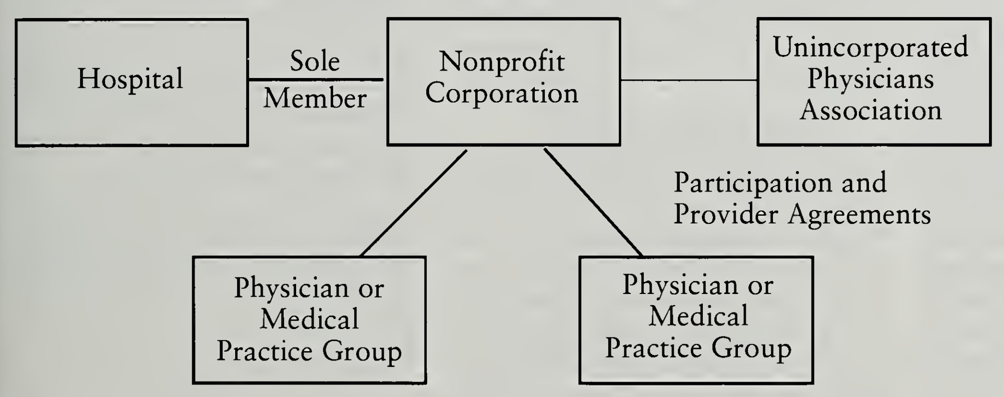
- universal access to care provided by ISNs;
- ISN participation in medical assistance, general assistance medical care, and MinnesotaCare;
- alternative financial, solvency, net worth, and reserve requirements for ISNs sponsored by health care providers;
- further study of the concept of designating "accredited capitated providers" and possible provision for

the reduction of capitalization and reserve requirements for ISNs to the extent that accredited capitated providers participate in an ISN and assume capitation risk;

- further study of provisions for the reallocation of malpractice liability;
- the retention of portions of fees paid for the management of ISNs if applicable management contracts provide for the payment of fees that are greater than 5 percent of gross revenues of the managed ISN;
- the organization of management cooperatives to facilitate the organization and management of ISNs;
- the development of standard benefit sets;
- the dissemination of information on cost, price, and quality of services rendered by respective ISNs;
- special provisions to encourage and facilitate the organization and operation of ISNs in rural areas.

Figure

Physician-Hospital Organization


Hospital
Sole Member
Nonprofit Corporation
Unincorporated Physicians Association
Participation and Provider Agreements
Physician or Medical Practice Group
Physician or Medical Practice Group

Participation in ISNs

Although the Legislature is still in the process of defining Integrated Service Networks, some organizations have already decided to organize ISNs. Blue Cross and Blue Shield of Minnesota and the Willmar Clinic already have announced their intention to organize an ISN, and existing HMOs and managed care plans, as well as new physician hospital organizations currently being developed, are expected to seek licenses to operate as ISNs.

Like these organizations, other physicians and medical practice groups should prepare for the change to ISNs. To remain competitive in the marketplace and to be responsive to the requirements of health care buyers and health care reform initiators, physicians should organize themselves into medical practice groups that can integrate and coordinate health care services.

The groups should have the ability to provide a full range of integrated and coordinated medical services and should be able to collect and report certain data, such as the cost of services, episodes of care, utilization, outcomes and patient satisfaction, quality of care, and value. The groups should have professional administrative personnel who can effectively manage the delivery of health care services and demonstrate the group's cost efficiency and continuous quality improvement. Physicians should have access to integrated medical records, as well as new and more sophisticated management information systems.

Generally, small, single-specialty medical practice groups and their participating physicians will not be able to satisfy the new requirements unless they reorganize into larger multispecialty groups or are willing to relinquish the private practice of medicine and become contract providers or employees of a hospital or staff-model ISN.

Physician-hospital organizations

Hospitals and hospital systems seeking to become ISNs and enable themselves to integrate and coordinate the delivery of health care services are organizing physician-hospital organizations (PHOs). The PHOs are nonprofit corporations controlled by hospitals that contract with physicians and medical practice groups (see figure).

A hospital controls a PHO by designating itself, in the articles of incorporation, as the sole member of the nonprofit corporation, which allows the hospital to retain authority over major business decisions. The sole member of a nonprofit corporation maintains substantially the same control as a sole shareholder of a business corporation. Generally, the articles of incorporation or bylaws provide for the designation or election of a board of directors, including both hospital and physician representatives. The hospital, as the sole member of the PHO, retains the authority to designate and change the articles of incorporation and the bylaws, as well as to change the membership of the board of directors.

Provisions have been made for the inclusion of certain physicians as participants in a "physicians association" of the PHO. The physicians association is not separately incorporated, however, and probably will have status and functions comparable to those of a hospital medical staff. Medical staffs of hospitals, one should note, are not organized to direct or participate in the hospital's business matters.

Without some structure to provide substantial professional and economic integration among physicians (other than and in addition to the medical staff structure), members of the hospital medical staff are competitors and are precluded from acting in concert to determine fees and whether to contract with certain parties. Such concerted action and certain other activities among medical staffs have been determined to be anticompetitive and constitute "per se" violations of the federal and state antitrust laws. Similar actions by physician participants in a PHO physicians association, without the requisite professional and economic integration, would also constitute per se violations of the antitrust laws.

In recognition of antitrust limitations, hospitals most likely will determine the terms and provisions of participation in the PHO and the provider agreements to be offered to individual physicians or medical practice groups. The antitrust laws do not preclude physicians and medical practice groups seeking to participate in a PHO from negotiating their own agreements with the PHO, but the laws do preclude physicians, without the required integration, from negotiating agreement terms and provisions on behalf of other physicians or medical practice groups.

PHOs are expected to secure new management information systems and new integrated medical records systems. The systems and the data collected and analyzed through the systems will be very important and valuable to the PHOs' marketing programs. Ownership and control of the systems and data will also be very important and valuable, and generally those who provide the funds to acquire and implement the systems will own and control the systems. If a hospital provides the funds for such a system, then the hospital will own and control the system and the data. This could lead to problems for physicians. If they do not own and control their patients' medical records and the management information systems and generated data, then they will not own and control essential and valuable components of their medical practices.

Mergers and Clinics Without Walls

One solution to some of the potential antitrust and information-control problems with PHOs is for physicians and medical groups to reorganize into larger multispecialty groups, either by merging or by forming Clinics Without Walls. These larger multispecialty groups will have the resources to provide the required integrated and coordinated medical services and to collect, analyze, and report the required data and other information at the medical practice group level, rather than at the PHO level. Physicians and medical groups can merge their practices or reorganize into Clinics Without Walls if the mergers and reorganizations are accomplished in accordance with the requirements of the antitrust laws and other applicable federal and state laws (see "Mergers and Joint Ventures for Survival: Determining Whether the Antitrust Light is Red, Yellow, or Green," page 31).

The Minnesota Medical Association, the Hennepin County Medical Society, and the Ramsey County Medical Society jointly commissioned a study and convened a steering committee of physicians and administrators to develop a model that physicians and medical practice groups can use to organize Clinics Without Walls. A report entitled "A Conceptual Framework for the Development of Clinics Without Walls," dated June 1, 1993, has been prepared and is available without charge to members of the Minnesota Medical Association and the county societies (contact Pat Biersach at the Minnesota Medical Association, 612/378-1875, for a copy).

The MMA and the medical societies will not participate in the organization of any Clinics Without Walls or other medical group practices. The report is provided only for information and use by physicians.

Conclusion

Buyers of health care services and the Legislature are requiring new integration and coordination of health care delivery services in Minnesota. They are requiring more and better management of health care delivery and are seeking greater accountability, cost efficiency, and competition among providers through the collection and dissemination of data and other information concerning costs, spending, utilization, quality, outcomes, and patient satisfaction. New statutory and regulatory provisions are being developed for the organization and operation of Integrated Service Networks to provide structure for the implementation of the desired changes. HMOs, managed care plans, hospitals, and others are contemplating organizing and operating Integrated Service Networks. It is very appropriate and necessary that physicians and medical practice groups monitor and analyze new regulatory developments, mergers of hospital systems and medical practice groups, and the organization of physician-hospital organizations. Physicians and medical practice groups should consider reorganizing or otherwise positioning themselves to be competitive and productive participants in ISNs and the changing marketplace. **MM**

Michel LaFond is a shareholder in the Minneapolis law firm of Orbovich, Fletcher & LaFond, Limited.

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Mergers and Joint Ventures for Survival

Determining Whether the Antitrust Light Is Red, Yellow, or Green

Sue Halverson, J.D.

Minnesota health care providers face a paradox. Recent changes in the health care market have prompted physicians and physician groups to consider merger or joint venture as a way to survive. Indeed, the state's health care reform efforts have encouraged collaboration between physicians, hospitals, and home care providers to cut costs by forming large, competing Integrated Service Networks (see "ISN Legislation Changing Health Care Delivery," page 27). However, during the past three years, Minnesota Attorney General Hubert H. Humphrey III has aggressively pursued antitrust enforcement against alleged anticompetitive practices in the health care system.

MinnesotaCare has established procedures for obtaining exemption from state and federal antitrust laws for arrangements approved and supervised by the commissioner of health. However, the exemption procedures require public disclosure of potential arrangements, submission of substantial amounts of data, and ongoing supervision by state regulators. Thus, physicians and physician groups need to know exactly where they stand and whether they can consider merger or joint venture as a viable option, with or without antitrust exemption.

Two sets of national standards can provide guidance on integrating services while avoiding antitrust trouble. This past March, the National Association of Attorneys General adopted the "Horizontal Merger Guidelines," which define potentially more stringent enforcement standards than the "1992 Merger Guidelines," issued jointly by the U.S. Department of Justice and the Federal Trade Commission. Physicians and clinics can use these guidelines to determine whether they have a green light to form larger practice groups, or whether the light is yellow or red under the specter of antitrust law.

Background

> "Physicians and physician groups need to know whether they can consider merger or joint venture as a viable option."

Mergers and joint ventures between physicians are called horizontal because they involve participants who are competing with one another at the same level of distribution. In contrast, physician-hospital mergers and joint ventures are considered vertical or conglomerate because the two operate in different spheres of health care delivery. Such non-horizontal mergers are beyond the scope of this article.

Horizontal mergers and joint ventures are subject to provisions under the federal Clayton Act, which prohibits mergers if they might substantially lessen competition or create a monopoly, and under the Sherman Act, which prohibits contract or conspiracy in unreasonable restraint of trade. Other statutes, such as the Minnesota Antitrust Act and the Federal Trade Commission Act, also apply to horizontal mergers. The central purpose of these laws is to prevent firms from attaining market power or monopoly power, which might allow them to drive prices above competitive levels or to jointly affect prices by agreeing, either expressly or implicitly, to coordinate their actions with other firms.

Analyzing horizontal mergers for possible antitrust violations involves several steps. Physician groups considering a merger should first define their product and geographic markets and then calculate the concentration of those markets before and after the proposed merger. To determine whether the action is likely to substantially lessen competition, they should evaluate a series of related factors—ease of entry into the market, potential efficiencies created by the merger, the existence of failing or exiting firms, and the effect of powerful or sophisticated buyers in the market. Through such analysis, physician groups can evaluate their risk of becoming involved in antitrust litigation.

Defining Product and Geographic Markets

Physician services that can be substituted for one another make up different product markets. For example, family practice physicians, internists, gynecologists, and pediatricians may constitute a product market for primary care services. Patients or third-party payers can choose among these types of providers, switching between them in response to price changes or other variables. In contrast, cardiac surgery is not a substitute for urologic surgery. Since each specialty is likely to be a separate product market, multispecialty provider groups may be involved in several different product markets.

Geographic markets are usually

defined from the buyer's perspective—where patients go for care. Generally the buyer is considered the patient, rather than the third-party payer. Physicians and physician groups can measure geographic markets by patient out-flow and in-flow statistics and/or anecdotal information regarding patient buying patterns. Physicians may find it useful to consider the extent to which managed care contracts or other insurance arrangements have or could change patients' choices in where they go for health care services.

Measuring Market Concentration

Once potential merging parties have defined relevant product and geographic markets, they should measure the merger's possible effect on market concentration. A highly concentrated market tends to indicate a monopolistic business environment that may facilitate anticompetitive conduct.

Typically, market share can be measured in terms of sales—revenue or fees generated by each group in the market. However, when fee data is not available, market share can be roughly measured in terms of the number of full-time equivalent providers in the market.

One method to calculate market concentration is the Herfindahl-Hirschman Index, which antitrust enforcement agencies use to gauge a merger's effect on a market. The index is computed by squaring the percentage market share for each firm in the market and then adding those squares together. For example, consider a market with four firms, each with a market share of 25 percent. The initial Herfindahl-Hirschman index of this market would be 2,500 ($25^2+25^2+25^2+25^2$). Should two firms merge, the new index would be 3,750 ($50^2 + 25^2 + 25^2$).

Merger guidelines define an unconcentrated market as one with an index less than 1,000. A moderately concentrated market has an index of 1,000 to 1,800, and a highly concentrated market has an index of at least 1,800. Thus, the market in the example was highly concentrated both before and after the merger.

Federal guidelines from the Justice Department and the Federal Trade Commission presume a merger will create market power if the index after the acquisition exceeds 1,800 and the index increase is at least 100 points. Since the merger in the example resulted in an index increase of 1,250 points (increasing from 2,500 to 3,750), it would presumably create market power. Guidelines from the National Association for Attorneys General (NAAG) apply the index a little differently. Under these guidelines, a merger that increases the index by more than 100 to a level above 1,000, or a merger that increases the index by more than 50 to a level above 1,800, will have significant anticompetitive effects.

> "Market power may be desirable from a business standpoint, but it may be risky from an antitrust standpoint."

The NAAG guidelines specify that mergers in an unconcentrated market may also draw antitrust attention. For example, in the Twin Cities area, which is generally perceived to be unconcentrated due to its large number of providers, antitrust challenges could arise when a dominant firm merges with a small firm.

Under the NAAG standards, if a group with 35 percent market share acquires a group with at least 1 percent market share, the merger will create or enhance market power, even though the index increase may be within acceptable limits.

In addition, if a physician group with a market share of 20 percent or more acquires a new, innovative group attempting to enter a moderately or highly concentrated market (index greater than 1,000), the NAAG guidelines characterize the merger as anticompetitive.

Evaluating Related Factors

Several factors can mitigate the presumptions drawn from the Herfindahl-Hirschman Index in determining whether two practices can legally merge or create a joint venture. As mentioned earlier, these include ease of entry, potential efficiencies, the existence of failing and exiting firms, and the effect of powerful buyers in the market. However, groups in a market in which there is evidence of prior collusion or anticompetitive behavior can rarely use these factors to defend a merger or joint venture, according to NAAG guidelines.

Ease of entry

A merger or joint venture is not likely to create market power—and attract antitrust scrutiny—if new providers can easily enter the relevant market. This is because the newly merged group or joint venture could not charge prices above competitive levels for any length of time. Entry into a market is considered "easy" if it would be timely, likely, and sufficient in size to deter anticompetitive effects.

The Justice Department addressed the question of likely physician entry into a market in 1987, when two general surgeon groups in Connecticut proposed merging. The department determined that entry into the market was not easy. It reasoned that new surgeons would have to acquire staff privileges at the local hospital, which would require cooperation from the established surgeons. Also, a new surgeon would depend on assistance from established surgeons during surgery and for continuation of coverage during vacations and illness. Finally, the new surgeon would have to develop a reputation for quality work before primary care physicians would make referrals. The Justice Department opposed the merger, stating entry was not sufficiently easy to overcome market power if the two groups merged.

As the above example illustrates, it may not be "easy" to demonstrate "ease of entry" in markets with a limited number of providers.

Potential efficiencies

Mergers or joint ventures might create efficiencies such as utilization review, practice parameters, technology assessment, outcomes evaluation, integrated billing, simplified contract administration, and reduced overhead expense. However, federal guidelines reject claims for antitrust exemptions based on increased efficiency if the parties can reasonably achieve comparable benefits or savings through means other than merger.

The NAAG guidelines impose an additional restriction on the efficiency defense. They require evidence from merging parties that gains due to increased efficiency will be passed on to consumers. Merely showing that a proposed merger will create efficiency may not ease antitrust concerns if the merger results in a highly concentrated market.

Failing and exiting firms

The Supreme Court has determined that a merger with or acquisition of a failing firm is legal, even if the merger or acquisition would be considered anticompetitive. Both federal and NAAG guidelines also recognize the failing firm defense, but they include stringent limitations. One of the most difficult limitations is the requirement to demonstrate that a new market entrant or a group with less market power would not otherwise acquire or merge with the failing firm.

For example, consider a hypothetical small town in rural Minnesota with three physician groups. Group A has three physicians; Group B has two physicians; and Group C has 10 physicians. Suppose Group A is failing. Group C might acquire it, which would increase its market concentration. Group C could employ the failing firm defense to avoid antitrust troubles, but that defense would apply only if no new entrant was interested in acquiring Group A as an outreach effort.

Powerful buyer defense

The NAAG guidelines add a new defense for health care mergers—the powerful or sophisticated buyer defense. Providers in the changing health care market increasingly deal with groups that have significant purchasing power, such as Medicare, large third-party payer systems, and buyer coalitions. Given the influence of these groups, even mergers that involve physician groups with relatively high market shares would not likely enable the providers to raise prices inordinately or impose other anticompetitive effects.

Physicians and physician groups proposing a merger must consider this powerful buyer defense with caution, though. NAAG guidelines only accept this defense when the powerful or sophisticated buyers are uniquely positioned to enter the provider market or to finance or otherwise facilitate the entry of other providers.

For example, an HMO might decide to employ specialists rather than make referrals to independent practice specialists who refuse to contract on terms acceptable to the HMO. Similarly, hospitals and even community organizations have been known to finance or otherwise facilitate the recruitment of physicians to a particular hospital or community.

Conclusion

Market power may be desirable from a business standpoint since large provider groups or joint ventures may have greater bargaining power in negotiating with large third-party payers or buyer coalitions. In addition, market power may be an essential component in the formation of ISNs. Thus, physician groups concerned with maintaining some control over their reimbursement arrangements or preparing for the formation of ISNs may feel that bigger is better or safer. However, bigger is not necessarily better or safer under the antitrust laws, and market power may be risky from an antitrust standpoint. Understanding the antitrust analysis of market power helps in deciding whether the merger light is red, yellow, or green. MM

Sue Halverson is an attorney with Fredrikson & Byron, P.A., in Minneapolis.

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CROSS WORD PUZZLE

By Ernest Lampert, M.D.

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1	2	3	4	5	■	6	7	8	9	■	10	11	12	13
14					■	15				■	16			
17					■	18				■	19			
20					21					22				
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25	26	27	■	28		29	30	■	31			32	33	34
35			36	■	37			38	■	39				
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55	56	57					58	59				60	61	62
63				■	64				■	65				
66				■	67				■	68				
69				■	70				■	71				

ACROSS

1. Often green
6. Force in with light strokes
10. Units of work
14. Not here
15. Solo
16. Set firmly in place
17. With force
18. Behind the pupil
19. Precedes cast
20. Down's is one
23. Fr. salt
24. Reminder
25. Queen of the fairies
28. Eugene ___ for President!
31. Nth ______
35. Toward the mouth
37. Spanned by the Ponto Vecchio
39. Heart-shaped cherries
40. Age 1 exanthem
43. Improper
44. Adams, the singer
45. Very dry
46. Milk acid
48. European volcano
50. Thing, in law
51. Kin, abbr.
53. Post-mortem conf.
55. Needs a Ramstedt
63. Chinese island
64. Below the occiput
65. Declaim
66. Idem
67. Persia
68. Avid
69. Peter was one
70. Per ____
71. Keenly aware

DOWN

1. Kind of party
2. Alas
3. What Mrs. Sprat couldn't eat
4. The Ram
5. Like a crate
6. For baby's bottom
7. Not worth _ ___ cent
8. A drop
9. Unpopular kind of dividend
10. The fetus is under the influence of ________
11. Discovered the vector of yellow fever
12. Storm
13. After lob
21. Pertaining to the small bowel
22. The end
25. Ethical
26. Redolence
27. Ph> 7.0
29. Hillside
30. Sarcastic
32. Assessor
33. Toughen
34. Salinger's heroine, et al
36. Warship
38. With a blue ribbon __ __
41. Willow
42. Swordplay
47. Where the babies cry
49. Cause of crib death?
52. Frighten
54. Roe of 13 down
55. Age
56. Sumac et al
57. ____ Linda Medical School
58. Team of oxen
59. Shelter
60. An herb, popular in Nov.
61. Roman road
62. Spanish artist

Solution on page 43

Investment Outlook in the Clinton Era

Larry R. Hill, C.F.A., and John D. Phillips, Jr., C.F.A.

As the first Democratic president in more than a decade took office this past January—a president who promised to shake up the economy—financial markets and investors reacted warily. Some months later, the uncertainty began to dissipate as President Clinton outlined and then began implementing his economic proposals. Although many details of the president's plan remain murky or undecided even now, what is certain is that supply-side economics of the Reagan-Bush era, characterized by lower tax rates, less government intervention in the economy, and a focus on foreign policy, have ended. The basic tenants of Clinton's policies include raising fees and taxes as a means to cut the federal budget deficit, decreasing defense spending, and increasing government intervention in the economy—with an initial push for job creation and massive health care reform. Although the political climate keeps changing, Congress is expected to enact many of Clinton's economic policies, which already have impacted financial markets and investment outlooks in various ways.

Based on what is known and what is expected from Clinton's policies and recent economic trends, market analysts have forecasted the outlook for fixed-income and equity investments. The forecast can best be understood by examining Clinton's first half year and the markets' reactions.

Clinton's First Half Year

During the past six months, the bond market and both short- and long-term interest rates have been favorable for Clinton, who appears to judge the effects of his fiscal policies and domestic agenda based on these markets. Interest rates on 30-year treasuries have fallen to new lows, under 6.9 percent, which reduces interest payments on the federal deficit. Investors have reacted to the possibility of a lower deficit and continued low inflation, as well as the probability that the economy will continue to grow slowly, by placing their capital in financial assets.

> "Uncertainty over impending changes to the nation's health care system has led to a serious decline in the value of health care stocks."

Consumers and businesses are concerned that the effects of Clinton's tax proposals will outweigh any benefits from his short-term stimulus package, which proponents say would create about 500,000 new public jobs. However, if interest rates remain low, the effect of higher taxes should be offset somewhat by mortgage refinancing, which is reducing household interest burdens.

Although the bond market reacted favorably to Clinton's policies in his first few months in office, the same can't be said for the stock market, which dropped significantly. Health care stocks, in particular, were hard hit. Widespread uncertainty over impending changes to the nation's health care system—notably, fears of health care price controls—led to a serious decline in the value of stocks for many health care companies, including medical device manufacturers, managed care companies, and pharmaceutical corporations. This decline is no trivial matter—health care stocks represent about 8 percent of the market value for Standard and Poor's 500 stocks and about 18 percent of growth stocks.

By analyzing the recent performance of these financial markets, as well as Clinton's proposals, the following forecasts can be made for fixed-income and equity investors.

Fixed-Income Outlook

For fixed-income investors, the outlook is cautiously optimistic. The bond market has reacted favorably to the president's plan. Many economists feel that budget deficits will be lower, the Treasury's issuance of long bonds will be reduced, and economic growth will be slow. All are favorable for bonds. However, the bond market faces some risk of higher inflation in the out years (the final two years of the president's four-year term). Moreover, meaningful deficit reduction may not happen if Congress does not enact spending cuts. Investors should remain vigilant.

Economic realities, not Washington policies, drive interest rates. Powerful global and demographic forces continue to restrain growth and inflation. These forces are reflected in sluggish money and job growth, neither of which are likely to be reversed by changes in economic policy. While these conditions prevail, fixed income will continue to be an attractive investment.

A fixed-income strategy should plan for modestly lower rates in the months ahead. Rates are expected to continue moving downward, with long treasury yields falling to 6.5 percent prior to year's end and short rates remaining at or near current 3 percent levels. The yield curve is expected to flatten somewhat from current levels. Despite positive views of the fixed-income market, many investors have reduced their portfolio duration.

Equity Outlook

The stock market is expected to move higher in the remaining months of 1993, reflecting rising earnings and valuations made more attractive by lower interest rates.

Large company growth stocks

Many analysts recommend that stock investors focus on growth companies that offer the best combination of value and relative strength in price and earnings. Growth stocks should perform well in an environment of moderate economic expansion.

Investors can expect continued volatility in medical, tobacco, and finance stocks. This volatility will continue as investors attempt to sort out which of Clinton's proposals will become law and how the proposals will be altered along the way. The Clinton administration's health care proposals, yet to be announced, will likely include stringent cost-containment policies. Stock investors might think seriously about reducing their number of shares in, for example, drug companies, for which long-term growth might be slow in an environment of health care cost containment. Stocks for tobacco companies, such as Philip Morris, may also be risky due to the likelihood of higher tobacco taxes to fund health care benefits and discourage tobacco use.

Natural gas stocks may benefit from Clinton's policies, which favor domestic energy and natural gas. Some analysts suggest consumer cyclical stocks to take advantage of opportunities provided by continuing, moderate economic growth. Stocks such as Chrysler and The Limited have performed well, and stocks in the technology, capital spending, and production sectors of the economy should benefit from Clinton's economic policies favoring production over consumption.

Small company growth stocks

Many financial forecasters believe the market is favorable for small-cap investing (investing in small companies, typically with less than $1 billion in market capitalization and growth rates in excess of 25 percent). The Clinton administration plans to aid small businesses with tax incentives, which would likely prove a prudent decision since new job creation is most often derived from small companies. Gross Domestic Product growth is likely to remain moderate, as demographics point toward lower labor force growth, implying lower inflation and a reduced rate of consumption growth. This moderate growth should not hinder small-cap stocks from maintaining their records for strong growth.

Some market analysts believe investors should focus on high-quality, fast-growing companies, including leaders in emerging markets for products and services providing solutions to many of today's productivity and health care issues. But with health care reform the administration's No. 1 priority, uncertainty has definitely increased for companies operating in this area. Many investors have already significantly reduced their health care exposure, although others seem to be very optimistic about managed care companies. Technology companies will likely be successful, aided by the administration's clear endorsement of investment spending and research sharing. Corporate America's single largest investments continue to be in information processing, so companies in this market will likely be richly awarded.

Conclusion

Stocks and bonds offer excellent long-term investment opportunities, even in today's uncertain environment. In the fixed-income sector, investors will be rewarded as rates continue their downward trend as a result of slow economic growth and subdued inflation. In the equity sector, investors will be rewarded by purchasing stocks in companies that can maintain or accelerate their rate of growth by being flexible and willing to adapt to the business climate of the 1990s. MM

Larry Hill is executive vice president and chief fixed income officer and John Phillips, Jr., is executive vice president and chief equity officer at Investment Advisers, Inc.

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A Meeting in the First Lady's Office

Serious Talk—Serious Listening

A. Stuart Hanson, M.D.

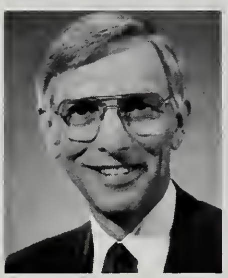
"Physicians will no longer be able to be cowboys. ... They need to organize themselves in a better way."
–Ira Magaziner

When Hillary Rodham Clinton accepted the role as chair of the President's Task Force on Health Care Reform, America began a new era. Her leadership marks a new level of involvement by a first lady in an important social and political issue. Since the Social Security Act in 1935, no social legislation has had the prospect of making such profound and far-reaching changes in the way we live.

The task force, which President Clinton announced January 25, worked until May 30 under Mrs. Clinton's leadership to develop health care reform recommendations for Congress. President Clinton is expected to announce the proposals in September. Several Minnesotans were involved in the process, including Lois Quam, who chaired the Minnesota Health Care Access Commission in 1990. Quam worked full time with an inner circle on the task force, managed by Ira Magaziner, senior adviser to the president for policy development.

This spring, the administrative team asked to meet with representatives from states that have substantive health care reform efforts in progress. I met with Mr. Magaziner and representatives from the nine other states in a conference room of the "Office of the First Lady," (so reads the sign plate on the door leading to a suite of offices for Mrs. Clinton and her staff in the Executive Office Building).

Mr. Magaziner presented a comprehensive overview of the task force's thinking at that time. Each representative had ample time to bring forth major issues from the state's perspective. In turn, I first discussed professional liability reform, emphasizing tort reform and raising questions with the administration's enterprise liability proposal. Second, I emphasized the need to assure antitrust protection for providers that link together, cooperate, contract, merge, or acquire other entities as they collaborate with other providers to form larger, more integrated networks to care for patients more efficiently and effectively. Third, I requested flexibility for states and for regions within states to develop local solutions to local problems, such as single collaborative networks in sparsely populated areas.



"We need to get behind health care reform, cooperate, and organize what we do to better meet the needs of society."

A broad outline of the administration's proposal, according to Magaziner, includes universal coverage requiring employers and employees to participate. It includes a guaranteed comprehensive benefits package including mental health, with both pre-paid and fee-for-service options. Insurance reform would move toward community rating and guarantee portability without disease exclusions. There would be "enhanced investment" (meaning subsidies) in underserved areas of the country. Choice of plans, both for patients and providers, would be preserved. Employers would be required to offer choices, and physicians could participate in multiple plans. A standardized information system to reduce administrative costs and to measure quality and accountability would be included. Finally, states would have flexibility in applying budgets, guaranteeing benefits, organizing networks to deliver care, assuring patient choice, and standardizing information and accounting systems within broad federal guidelines.

When it comes down to specific details, conflicts begin to develop. So many interests must be considered. Each special interest group wants to solve the health care crisis while minimizing any negative effects on its own interests.

Mrs. Clinton and her advisers have taken on a huge task—one that could lead to the greatest social change in our lifetime. Creating universal access to comprehensive health benefits with cost containment and full accountability, while preserving adequate patient and physician autonomy and state flexibility, is a tall order. Health care reform may be the Clinton administration's highest achievement—or it could be its worst failure. We all have a stake in the outcome. We need to get behind health care reform, cooperate, and organize what we do to better meet the needs of the society we serve. We need to listen, and we need to act. The outcome will depend to a significant degree on how we respond. MM

People and Places Making Medical News

People

'U' Medical School Dean Resigns, Hasselmo Fills New Positions

David Brown, M.D., has resigned as dean of the University of Minnesota Medical School, a position he held since 1984. As *Minnesota Medicine* went to press, University President Nils Hasselmo, who said he did not request Brown's resignation, was expected to name a temporary replacement from within the Medical School by July 1.

Brown, who will remain at the university as a professor of laboratory medicine and pediatrics, is the third top official to resign this year in the wake of financial, management, and research scandals that have shaken the Medical School and triggered at least five federal investigations.

Hasselmo announced that he has filled two new jobs in the Medical School. He named Winston Wallin, who is chair of Fridley-based Medtronic, Inc., to the newly created post of special adviser to the president to help solve the Medical School's problems, and he appointed Richard Elzay, D.D.S., as temporary deputy vice president for Health Sciences. Elzay is also dean of the dental school.

Wallin will head a team that will work on three main problems: help the Medical School deal with the rapidly changing health care marketplace, revise the school's controversial private-practice system, and find the most appropriate management structure for the future.

Elzay will oversee all health programs except the Medical School in the Twin Cities. He will oversee the schools of dentistry, pharmacy, nursing, veterinary medicine, public health, and the University of Minnesota-Duluth School of Medicine.

Minnesota Academy of Ophthalmology Officers

The Minnesota Academy of Ophthalmology elected Theodore L. Fritsche, M.D., president for 1993. Fritsche is an ophthalmologist with Southwest Ophthalmology in Marshall. Rene W. Pelletier, M.D., St. Paul, is president-elect; Jerry L. Korbin, M.D., St. Paul, is secretary; Budd Appleton, M.D., also of St. Paul, is councilor; and Edward J. Holland, M.D., of Minneapolis, is treasurer.

Family Physician of the Year

The Minnesota Academy of Family Physicians chose Richard Schindler, M.D., of Austin, for the 1993 Minnesota Family Physician of the Year Award. Schindler is medical director of the Health Care Center, Group Home, and Ambulance Service in Adams, Minnesota, and he practices in Austin. He has been recognized statewide for establishing innovative Continuing Medical Education programs while serving as director of CME for the Austin Medical Clinic and as adviser to Mayo Clinic's Regional Visiting Faculty Program.

Fairview Southdale Perinatal Clinic Director

Kathleen M. Pfleghaar, M.D., has been named medical director of the Perinatal Clinic at Fairview Southdale Hospital in Edina. The clinic provides support services to families experiencing high-risk pregnancies. Pfleghaar, of Minnetonka, is a perinatologist.

Former HCFA Head Joins United HealthCare Board

The United HealthCare Corp. has elected Gail R. Wilensky to its board of directors. Wilensky is former administrator of the United States Health Care Financing Administration, which directs the nation's Medicare and Medicaid programs. She also served as deputy assistant to the Bush administration for health care policy development. Currently, she is a senior fellow with Project HOPE in Bethesda, Maryland, a program that brings health care education to needy areas. Wilensky's term on the board of Minneapolis-based United HealthCare runs through 1996.

Minnesota Orthopaedic Society Officers

David G. Lewallen, M.D., of the Mayo Clinic in Rochester, recently assumed the presidency of the Minnesota Orthopaedic Society. James H. House, M.D., of Minneapolis, is president-elect; James R. Larson, M.D., of Edina, is secretary; and Douglas A. Drake, M.D., also of Edina, is Minnesota Medical Association liaison. Members-at-large are Terence J. Gioe, M.D., of St. Paul; Terence J. Kennedy, M.D., of Alexandria; and Michael B. Wood, M.D., of Rochester.

Psychiatric Society Practitioner of the Year

The Minneapolis Psychiatric Society named Donald Mayberg, M.D., Private Practitioner of the Year. Mayberg, who has been in private practice in the Twin Cities since 1959, currently practices with the Minneapolis Psychiatric Institute at Abbott Northwestern Hospital, where he is also director of Psychiatric Education and Training.

FDA Special Citation

The Food and Drug Administration selected Bert Spilker, M.D., Ph.D., to receive a special citation for his "commitment to improving the lives of rare disease sufferers through the development of orphan drugs." Spilker, a 22-year veteran of the pharmaceutical industry, is executive director of Orphan Medical and vice president at Chronimed, Inc., both in Minneapolis.

Places

MedCenters and Medica Receive Quality Accreditation

The National Committee for Quality Assurance has provisionally accredited MedCenters Health Plan and Medica for 15 months. Only about 50 health maintenance organizations nationwide have been granted full or provisional accreditation by the NCQA, an independent nonprofit organization designed to improve quality and provide information to purchasers of managed care systems.

In its review process, the NCQA looks at HMOs' utilization management, recredentialing programs, dissemination of information about members' rights and responsibilities, medical record reviews, and evaluation of available preventive services. Criteria are developed by representatives from managed care organizations, physicians, consumers, purchasers, academicians, and labor representatives from across the country.

Smoke-Free 2000 Awarded for Anti-smoking Efforts

The Minnesota Coalition for a Smoke-Free Society 2000 has been chosen to receive a national award for its efforts to promote nonsmoking in Minnesota. The group has been named to receive this year's Community Coalition Award from the U.S. Centers for Disease Control and Prevention and the Association of State and Territorial Directors of Public Health Education.

The Smoke-Free Coalition was founded in 1984 with the goal of eliminating smoking in the state by the year 2000 and has helped pass significant anti-smoking legislation and sponsored national conferences on nicotine dependence.

The coalition consists of Minnesota groups and organizations with an interest in tobacco and health issues, including the Minnesota Medical Association, as well as government agencies, physician groups, health care providers, HMOs, health care insurers, and private nonprofit organizations.

Socioeconomics

3M Joins Business Coalition on Health Care

3M has joined 14 other companies in the Business Health Care Action Group, a corporate health care buyers' group organized to demand both quality and cost accountability for health care providers. Other members include Dayton-Hudson, Cargill, General Mills, Honeywell, and Carlson Cos.

3M, based in Maplewood, joined the coalition as part of a comprehensive reorganization of the company's health benefits. It decided to join the three-year-old group, which represents about 80,000 employees in the Twin Cities area alone, because of its arrangements with local health plans to monitor quality and rein in cost, said 3M benefits manager Joe Thompson.

Group Health to Try Electronic Claims

Health care providers that serve Group Health clients soon will be able to submit insurance claims electronically under an agreement announced recently by HealthPartners (parent firm of Group Health and MedCenters Health Plan) and Blue Cross and Blue Shield of Minnesota. Under the arrangement, providers now linked to the Blue Cross computer network will be able to use it to forward claims to Group Health, which has been receiving providers' claims on paper.

The system will affect about 30 percent of all claims that Group Health receives, said HealthPartners spokesperson Sarah McFee. These claims involve services provided to clients by providers not part of the Group Health network.

The system is expected to be cost effective for Group Health. Blue Cross estimates that paperless claims save anywhere from 50 cents to $2 in administrative costs per claim.

United HealthCare Sells Iowa Health Plan

Minneapolis-based United HealthCare Corp. has signed an agreement to sell United HealthCare of Iowa, a 26,800-member health plan, to Principal Health Care Inc. United HealthCare said it will receive approximately $20 million for the health plan this fall, when it is expected to close the sale, pending regulatory approval.

Methodist Hospital, Park Nicollet Agree to Consolidation Plan

Methodist Hospital and Park Nicollet Medical Center, both of St. Louis Park, have completed an agreement to consolidate their management. Under the arrangement, the institutions will continue separate daily operations under a new parent company called HealthSystem Minnesota. However, the hospital and clinic will not merge their assets, which total $443 million.

Mystery Illness Has Possible Link to Rodents

The mystery flu-like illness that has killed 11 people and infected seven others in New Mexico and Arizona is possibly linked to a rodent virus, scientists have reported. Antibody proteins directed against the virus were detected in autopsy samples, suggesting the victims' immune systems had attempted to fight off the pathogen but failed.

The virus detected in the patients is either the Hantaan virus, a microbe ordinarily associated with kidney disease and severe bleeding, or a related strain, said researchers, who also found the viruses in wild rodents in the area. They presume people who contracted the respiratory ailment were exposed to the virus by inhaling airborne particles of droppings from rats, field mice, or some other type of rodent carrying the microbe.

Experts caution that the results are still preliminary. Some researchers remain skeptical since none of the known types of hanta virus—related to the Hantaan virus—have been associated with the most outstanding symptom seen in the latest epidemic, in which the lungs fill up with fluid, causing death by asphyxiation.

Integration in an ISN

The concept of ISNs is central to the new type of health care delivery system conceptualized and recommended by the Minnesota Health Care Commission. Health Care Commission member K. James Ehlen, M.D., chair and CEO of Medica and chair of the Commission's Services Delivery Subcommittee, shares his thoughts on how ISNs will dramatically change the current health care system.

"ISNs represent a new way of doing business that will bring greater integration to the delivery of health care in Minnesota."—K. James Ehlen, M.D.

Many physicians have asked me, "Are ISNs something new, or is it just a new acronym for an old system?"

The concept of ISNs is different. And it's a concept that I truly believe will bring positive changes to the health care system because of its operative word: Integration.

Literally, integration means to combine parts into a whole. And that's exactly what ISNs will do. ISNs will represent a strategic alliance between all of the players in the heath care system—physicians, health plans, hospitals and other providers.

Medica currently invites its physicians to help the plan set policy and guidelines through participation on the board or Medical Policy Council. But ISNs will bring this concept further, requiring us all to form a true partnership, with one common vision, and common strategic objectives.

ISNs will encourage greater inter- and intra-professional collaborations as everyone works toward the goal of delivering quality, cost-effective care. These collaborations also will be critical in the development of uniform practice parameters, billing and claims systems, utilization review requirements, and criteria for the use of new technology and diagnostic equipment.

Competition between ISNs will be promoted and facilitated through the availability of comparable data on price, costs, utilization and quality. ISNs will be required to provide the full array of health care services for a fixed price to the consumer. So the greater the degree of integration of clinical, financial, information and governance systems, the greater the potential for quality improvement and cost reduction.

This year, we are working to design procedures for determining ISN status, and rules that will govern ISNs and the all-payer system for non-ISN services. This will allow health plans and providers an opportunity to make appropriate decisions about whether to join or form an ISN before the state implements an all-payer system.

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Rates, Trends, Data

Medical School Applications Soar

Medical school applications have reached record numbers, despite expectations of reduced earnings for physicians and restrictions on professional autonomy under health care changes expected from the Clinton administration.

Applications for the 1993-94 school year are at an all-time high, according to the Association of American Medical Colleges, expected to exceed the record of 42,621 set in 1974-75.

The increase in applications, which has been steady since 1990-91, marks a reversal of the decline in popularity of medicine as a profession among young Americans. As recently as 1988, applications to medical schools plunged to the lowest level since 1970.

Medical and educational leaders are puzzled by the rapid turnaround, but medical school officials, as well as the applicants themselves, have several explanations. Medicine offers both a degree of economic security and a chance to do good for the community, they say. An additional attraction is the excitement of new technology, including gene therapy. Also, many students are optimistic that things will improve for doctors.

Innovations

Procedure May Help Women Maintain Pregnancies

A new application of an established surgical technique may help women who have uterine abnormalities maintain their pregnancies. St. Paul surgeon Theodore Nagel, M.D., of Reproductive Health Associates, developed the technique.

Some women with malformed uteruses were exposed in utero to the hormone diethylstilbestrol. During the 1960s, women were treated with diethylstilbestrol to help maintain their pregnancies. However, the hormone did little to help women avoid miscarrying, and it led to malformed uteruses in females who were exposed to it in utero.

Nagel's surgical technique reshapes the uterus by making incisions in the abnormal-shaped areas. After the incisions are made, a balloon filled with saline solution is inserted for a week to maintain the new shape. During that time, the women are treated with high doses of estrogen to stimulate development of the uterine lining. Although this procedure was used previously in areas of the uterus containing few blood vessels, Nagel's adaptation now involves vessel-rich areas, as well.

Nagel, who is on the medical staff of United Hospital in St. Paul, has used his techniques with women at his practice and at the University of Minnesota Hospital and Clinic.

Leukemia Drug Eases Sickle Cell Disease Pain

A chemotherapy drug typically given to people with chronic leukemia is being used to treat the unrelenting pain of sickle cell disease, say physicians at Children's Hospital of Wisconsin.

Nearly a dozen patients—mostly children, but also some young adults—have received the chemotherapy drug hydroxyurea, said J. Paul Scott, M.D., a pediatrics professor at the Medical School of Wisconsin and head of the sickle cell clinic at the hospital.

"They went from being ill frequently and having frequent pain crises to having almost none," Scott said. Also, none of the patients exhibited symptoms normally associated with chemotherapy, such as nausea, vomiting, or hair loss, he said. Hydroxyurea elevates production of fetal hemo-

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globin, Scott said, although doctors are unsure how this happens.

Children's Hospital physicians are treating sickle cell disease with hydroxyurea under a cooperative study with the University of Illinois at Chicago.

Medical Research

Testing Stool for Blood May Reduce Colon Cancer Rate

A simple screening test could reduce the death rates from colon and rectal cancer by 33 percent among people over age 50, University of Minnesota scientists have reported.

In a $15 million, 13-year study published in the *New England Journal of Medicine*, researchers found that Hemoccult, a test that detects blood in the stool, can lead to a reduced number of deaths. Although the test itself does not detect cancer, physicians can follow-up with more elaborate tests if hemoccult detects blood in the stool. Colorectal cancer is diagnosed in 154,000 Americans each year and will kill an estimated 57,000 this year—second only to lung cancer in the number of cancer deaths in the United States.

In the Minnesota study, 46,500 volunteers were assigned to one of three groups: the first group was screened annually; the second group was screened every two years; and a control group was told to continue health care as usual. Most members of the control group received no fecal screening. University researchers found the cumulative death rate from colorectal cancer for those who were screened annually was 5.88 per 1,000 participants. The death rate for those screened every two years was 8.33, and the death rate for the control group was 8.83.

"For the first time, we have conclusive measure of the benefit of screening for colorectal cancer," said Jack Mandel, Ph.D., an epidemiologist in the university's School of Public Health and the study's principal investigator. University physicians found that the test is very effective in reducing the death rate because it enables some patients who have cancer to get treatment early enough to save their lives.

ACE Inhibitors Aren't Used to Treat Heart Failure

About 70 percent of the 3 million Americans with failing hearts aren't given drugs that might extend their lives an average of 18 months, according to a study by the U.S. Department of Veterans Affairs that compared a variety of drugs in the treatment of heart failure.

Jay Cohn, M.D., a University of Minnesota cardiologist and director of the study, said physicians have been reluctant to use blood vessel relaxers known as ACE inhibitors, partly due to their cost. Cohn, who has advocated the increased use of the ACE inhibitor enalapril in combination with other heart-failure drugs, said more common heart failure drugs are available and are far less expensive, but they would be more effective if used along with enalapril.

Cohn said the VA study showed that a combination of two blood vessel-relaxing drugs, hydralazine and isosorbide dinitrate, could prolong life about 10 months in patients whose hearts are failing. Giving enalapril in addition to the other two drugs added an average of 18 months of life, he said.

"You have to use multiple drugs to treat heart failure," Cohn said. "It is important to note that there is no magic bullet, no one pill. We probably will have to use drugs in even more combinations than we are currently using."

Children With Strep Should Wait Before Returning to School

Children with strep throat should stay home from school or day care at least 24 hours after they begin antibiotic treatment to avoid spreading the infection, researchers at Group Health and the University of Minnesota conclude.

Their study, published in the June issue of *Pediatrics*, found that many children with strep are still infectious the day after they begin treatment, although they often feel well enough to return to the classroom or day care. The findings support an unsubstantiated recommendation from the American Academy of Pediatrics to keep children home one day after initiating treatment.

Researchers randomly assigned 33 boys and 14 girls with strep to one of three groups: those treated with oral penicillin, those given a penicillin injection, and those who were treated orally with erythromycin estolate, a penicillin substitute. Each child was monitored three times within the first 24 hours after treatment began.

The researchers found that 17 of the 47 children, about 36 percent, had positive cultures and could spread the infection the day after they began treatment. However, they also found that children who are treated with penicillin can definitely return to school or day care after 24 hours. Researchers suggested that parents of children treated with erythromycin should be more cautious because the antibiotic does not work as quickly.

Tap Water in 819 Communities Has Too Much Lead

The Environmental Protection Agency warned 819 communities nationwide that some of their tap water contains too much lead and ordered them to correct the health hazard.

The agency's sampling during the second half of 1992 reported unsafe lead levels in certain areas of the public water systems serving a total of 30 million people, EPA officials said. However, not all people in those areas need be worried, officials said, because the monitoring targeted only the high-risk sections within each water system.

In Minnesota, 29 communities listed in the report had unsafe lead levels—more than 15 parts per billion. Lead levels ranged from 16 parts per billion in Ely to a high of 72 parts per billion in the high-risk areas tested in Redwood Falls. In the Twin Cities, high-risk areas showed levels at around 30 parts per billion. No Minnesota cities ranked among the top 10 large or medium systems in reported lead levels.

AIDS Update

Minnesota Researchers Report at International AIDS Conference

Many people at increased risk to contract AIDS don't want to be tested to see if they have the virus, even when offered free and anonymous HIV testing, reported Minnesota researchers at the international AIDS conference in Berlin. Keith Henry, M.D., and colleagues studied 391 patients, including heterosexuals and homosexuals, at St. Paul-Ramsey Medical Center's sexually transmitted disease clinic. All the patients were considered at increased risk for AIDS for various reasons, but none had been tested for HIV. Although they were offered free, anonymous HIV testing, 35 percent declined, Henry said.

Minnesota researchers also reported the results of three other AIDS-related studies at the conference:

Two University of Minnesota sociologists, Robert Kennedy and Robert Fulton, reported that their analysis of national trends shows an increased risk of heterosexuals contracting HIV, chiefly due to sexual intercourse with bisexual men and drug abusers. They warned that sex partners of such people may not take preventive measures, such as wearing a condom, because they may not consider themselves at risk.

Researchers riding with ambulance crews in the Twin Cities saw 79 cases in which paramedics used needles to inject drugs and intravenous fluids. In about one-fourth of the cases, there were delays putting used but uncapped needles into disposal boxes, raising the potential for accidental infections. They found the paramedics were more likely to immediately dispose of the needles if the disposal boxes were within an arm's reach.

Kirk Morgan, M.D., an ophthalmologist at Park Nicollet Medical Center in the Twin Cities, reported a two-drug combination can reduce the risk of blindness from cytomegalovirus, often a complication of AIDS. The eye infection can be treated with the drug ganciclovir, he said, but it poisons the bone marrow. Many physicians have begun adding another drug, granulocyte stimulating factor, which spurs the body to produce more white blood cells. This allows high doses of ganciclovir to be used for a longer time. In the study involving 35 patients since 1991, the incidence of blindness dropped from 58 percent when treated with just ganciclovir to 13 percent with the two-drug combination. MM

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- Regional Coordinating Board Updates
- Legislative Briefs
- Capitol Notes
- MMA's Campaign Against Family Violence Materials
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Solution to crossword puzzle from page 34

S	A	L	A	D	■	T	A	M	P	■	E	R	C	S
T	H	E	R	E	■	A	R	I	A	■	S	E	A	T
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C	E	N	E	T	I	C	D	I	S	D	R	D	E	R
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M	A	B	■	D	E	B	S	■	D	E	C	R	E	E
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P	Y	L	D	R	I	C	S	T	E	N	D	S	I	S
A	M	O	Y	■	N	A	P	E	■	O	R	A	T	E
S	A	M	E	■	I	R	A	N	■	E	A	G	E	R
T	S	A	R	■	C	E	N	T	■	A	L	E	R	T

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Submit clinical articles, essays, letters, book reviews, and other manuscripts at any time to: Meredith McNab, Managing Editor, *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. Manuscripts are reviewed by the editors and peer reviewed by the Advisory Committee, the Review Board, and other experts in particular specialties.

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The first page of the manuscript should include: 1) a title—make it short, specific, and direct, 2) the full names of all authors, with their academic degrees, 3) authors' positions in hospitals or other institutions—include current position and the position held when the work reported in your manuscript was done, as well as academic appointments and other information pertinent to the paper's topic.

Abstract

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Tables

Tables must have a title and be on separate pages. If they occupy more than one page, type "*title* (cont.)." If the data in the tables have been previously published, appropriate reference should be given in the text, and permission should be obtained from the original publisher before submission to *Minnesota Medicine*.

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Submit two copies of illustrations, keeping one for your files. Figures should be professionally drawn or photographed, if possible. We prefer glossy, clear black-and-white photographs, but color is acceptable if the contrast is good. Do not send original artwork.

Each figure should have a label pasted on the back indicating the figure number, author names, and the top of the figure. Legends should be included in the text of the manuscript with numbers corresponding to the figures. Do not mount figures on cardboard, write on the back of the figures, or attach paper clips to them. If a patient in a photo is identifiable, a written release form from the subject must accompany the photo.

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All references must be cited in the text and should be arranged in the order in which they are cited in the text—*not* alphabetically. Journals should be abbreviated as in *Index Medicus*.

Examples:

1. Benson RC Jr. Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 1986;61:859-64.
2. Guttormson NL, Bubrick MP. Mortality from ischemic colitis. Dis Colon & Rectum, to be published.
3. Chaterjee SN. Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.
4. Thompson NW. Thyroid and parathyroid. In: Welch KJ, Randolph JG, Ravitch MM, et al., eds. Pediatric Surgery, 4th ed. Chicago: Year Book Medical, 1986: vol 1, 522-33.

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Youth Violence

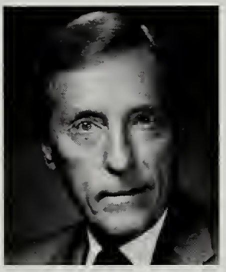
An Epidemic Vaccines Can't Treat

Edmund C. Burke, M.D.

This month, *Minnesota Medicine* examines the violence threatening physicians (page 10), but we docs are only a small minority of those affected by the escalation of violence in our society. America's youth are dying at a record rate from an epidemic of bullets.

In my May Editor's Notebook, I cite a statistic that homicide has become the second leading cause of adolescent death. However, this statistic does not fully convey some of the alarming trends in youth violence. Figures from the National Center for Health Statistics show that youth violence, especially that related to firearms, has reached shocking levels. From 1985 to 1990, the total firearm death rate among teenagers aged 15 to 19 increased 77 percent, reaching 23.5 deaths per 100,000. Perhaps more disturbing, though, is the escalation of firearm deaths among youths aged 10 to 14. During those same five years, the firearm death rate for this group increased 18 percent, reaching a rate of 3.3.

The Center for Health Statistics found that young African-American males are among the primary victims of youth violence. The firearm death rate for African-American boys aged 10 to 14 increased from 3 per 100,000 in 1985 to 6.9 per 100,000 in 1990. For African-American men aged 15 to 19, the rate increased from 46.5 to 119.9 during those same years.



> "Youth violence, especially that related to firearms, has reached shocking levels."

This wave of youth violence has been most prevalent in inner-city areas, in part due to gang activity. In fact, the Center for Health Statistics cites the resurgence in street gangs as a primary cause of the dramatic increase in teenage firearm deaths. But violence is spreading to suburban and rural regions, as well, and Minnesota is not immune. This past February, a 20-year-old man shot and wounded three people at the Mall of America in Bloomington during an apparent gang-related argument.

Gang activity affects physicians when violence spills over into emergency departments. This month's feature story (page 10) includes a discussion on the increasing risk in emergency departments and how some Twin Cities hospitals have reacted. In addition, our newly designed Face to Face section features Joseph Clinton, M.D., chief of Emergency Medicine at Hennepin County Medical Center, who discusses the hospital's effort to prevent violence within its walls, even though its emergency department has never experienced a serious incident of violence (page 6).

In the May issue of the American Academy of Pediatrics' newsletter, several physicians spoke about the youth violence they've encountered—gang incidents in hospitals and the increase in gun-related injuries. "Kids will come in looking for (injured gang members) to find out what happened or to finish them off," says Laura Fitzmaurice, M.D., section chief of Emergency Medicine at Children's Mercy Hospital in Kansas City, Missouri. Sometimes hospital staff are afraid to deal with patients who are gang members, and patients may be fearful of sharing a room with a gang member.

One cause of youth violence, says Robert Tanz, M.D., an attending pediatrician at Children's Memorial Hospital in Chicago, is "a feeling of hopelessness" in patients who feel they have nothing to lose and no reason to live. "If there's no future, there's nothing to hold you back from violent urges."

The vast number of handguns in society creates an environment conducive to violence, but the media and the entertainment industry also share some fault, says Jane F. Knapp, M.D. "Movies, violent lyrics, newspapers, and books can be included," says Knapp, director of Emergency Services Division at Kansas City's Children's Mercy Hospital. "Television has made the biggest impact. Continued viewing of violence contributes to violent behavior," she says. "It gives wrong impressions of violence—that it is an accepted way to solve problems. It certainly seems to contribute to violent behavior in kids."

What can we in the medical profession do to help root out violence in our society? We must educate children and parents to identify gang behavior and encourage parents to monitor the friends their children make. We should support legislation calling for handgun control and write our legislators. We should support the Minnesota and American medical associations in their efforts to put an end to this escalation of violence. Our children—our future—hang in the balance. MM

Better Safe Than Sorry

Preventive Medicine at HCMC Means Security

By Christian Fünfhausen

Striding through the breezeway in front of the ambulance entrance to Hennepin County Medical Center's emergency department, Joseph Clinton, M.D., speaks about the hospital's current and upcoming renovations as if he were the host of a home improvement television show. "Down there will be the pedestrian entrance," says Clinton, chief of Emergency Medicine at HCMC, pointing toward what now is a door leading to several administrative offices. He stops at the ambulance entrance and says, "Up there will be cameras, and these doors will be closed at all times."

HCMC's renovations are preventive, rather like installing storm doors to protect from the cold. But instead of sheltering itself from nature's elements, the hospital wants to safeguard against violent acts such as those plaguing other urban medical centers nationwide—acts that could potentially affect HCMC's emergency department with tragic results. So after much discussion, the hospital is increasing security measures and considering installing a metal detector.

Sign of the Times: Busier and Riskier

Moving on, Clinton points out the department's new security station as if showing off a newly remodeled kitchen. Behind a glass wall sits a guard watching several black-and-white monitors and a computer screen displaying rows of names. Security keeps a list of all patients inside the emergency department.

When Clinton, 44, came to HCMC in 1974 as a resident, the hospital didn't have a computerized monitoring system. Then again, it didn't have as many patients to monitor.

"We're definitely busier," says Clinton. Indeed, this year the department will treat more than 90,000 patients—about 20,000 to 30,000 more than in 1975, says Clinton, who spends about half his time treating patients. He believes emergency departments have become a health care "safety net" for people who cannot afford care, a dilemma that has overburdened many hospitals. However, Clinton says, HCMC's emergency department has developed better, more efficient care, despite the increased volume of patients.

In addition to growing demands on emergency medicine physicians, other significant changes have come in the way of increased risk to caregivers (see Cover Story, page 10). Physicians in all fields face the threat of malpractice litigation and the possibility of contracting AIDS and other deadly diseases, but physicians in emergency medicine face the additional risk of violence spilling over into their workplace. The risks involved in emergency medicine are a "function of society," says Clinton, and society is getting more violent.

Clinton should know. During the past two decades, he has had ample opportunity to witness the effects of increasing violence. "The emergency department is really a slice of our society, so what we see reflects what goes on," he says. "In a one- or two-week period in the emergency department in 1975, we might have seen one or two gunshot wounds. We now may see one or two on a weekend night—we may see a half dozen, sometimes. The number of firearm injuries has markedly increased."

Across the country, violence seems to be endemic. Many U.S. cities like New York, Los Angeles, Detroit, and Washington, D.C., have more homicides each year than the entire *countries* of Britain, France, Germany, or Japan.

The Twin Cities has recently experienced an upswing in murder rates. During the first six months of this year, the number of homicides in Hennepin County (which includes Minneapolis) was more than 80 percent higher than the first half of 1992, according to the county's medical examiner. Although the total number of homicides in the county (70 in 1991) is far less than cities such as Los Angeles (about 2,000 in 1991), the numbers seem to confirm Clinton's observation that "things are getting worse."

Despite an increase in homicides and firearm-related injuries, HCMC has never experienced a serious incident of violence in the emergency department, although hostility directed toward caregivers is not uncommon—often by patients who are intoxicated or have psychiatric problems. Emergency medicine staff members attempt to identify people who are liable to become hostile.

> "If we don't implement security measures, we may be forced to after a crisis situation. ... We'll eventually have an incident we could have prevented."
>
> –JOSEPH CLINTON, M.D.

Joseph Clinton MD

PHOTOGRAPH BY BRYAN WENDLAND

The use of weapons is rare within HCMC's doors, but the number of weapons confiscated from patients has grown, says Clinton, adding that an increasing number of people are carrying weapons to protect themselves. Sometimes people bring weapons into the emergency department unwittingly. Not long ago a woman was visiting a patient at the medical center and inadvertently revealed a .22-caliber pistol when she opened her purse in front of a staff member, tells Clinton. The woman didn't intend to use the gun, but the story exemplifies the problem, he says.

Few people intend to use weapons when they seek medical treatment at emergency departments, but patients and visitors in the ED are often in a highly volatile emotional state. Frustrations such as long waits for care can increase their tension, says Clinton. Give these patients a weapon, and you have a recipe for disaster.

One such disaster occurred this year at Los Angeles County General Hospital, where three emergency physicians were injured after being shot by a frustrated patient. Clinton, who interned at the University of Southern California Medical Center in Los Angeles from 1973 to 1974, knows many physicians affected by the attack.

"They're dealing with the same issues we are," he says. "They had an armed guard on duty, but no metal detector. I don't think they're comfortable with the security arrange-

CLINTON continued on page 41

PERSPECTIVES

The Summer Terror

By Walter W. Benjamin, Ph.D.

My childhood years were spent in a small southwestern Minnesota town during the Great Depression. Poverty and unemployment gripped the nation, but these were not our only fears. Each year, my parents faced the Summer Terror, the great crippler of children. Poliomyelitis, popularly called polio, stalked our family and millions like us during the dog days of July and August.

ILLUSTRATION BY MARY QUINLIVAN

As the long, hot days began, our family routine changed. The age-old remedy of isolation strained community bonds. We avoided crowds and shunned playmates for fear they might carry contagion. Theaters shut down, Sunday schools closed, and swimming pools were drained. Families who could, left for farms or lakeside cottages.

Despite these precautions, no one was safe from polio, not even a doctor's family. Although my father was a physician and surgeon, having completed a three-year surgery residency at the Mayo Clinic, our family was not spared. My father's waiting room proudly displayed photographs of Will and Charles Mayo, complete with personal greetings, but neither personal connections nor medical skills held sway over the Terror.

Because I was only four, my recollections are fleeting, but I remember the day I was playing in the sandbox with my 2-year-old brother, Dickie, who had curly blond hair and deep blue eyes. I filled his diapers with sand and made him cry.

Dickie suddenly became "cranky," as was said in those days, and ran a fever.

The law prohibited my father from admitting Dickie to our 20-bed hospital for fear of contagion. In desperation, my father called a classmate in Minneapolis who specialized in pediatrics, and after an all-night drive, the doctor arrived at our house. I was supposed to be asleep, but I could hear my father and the specialist talking and my mother crying. They put Dickie on Mother's dressing table and anesthetized him. A spinal tap revealed polio had invaded his brain. Dickie was dead within 48 hours of being cranky.

The law required families to bury those who died of contagious disease within 24 hours in a sealed, metal casket. No more than 15 people could attend the funeral. A small, galvanized steel container was quickly fashioned, and Dickie was buried in our family plot in Hutchinson, Minnesota, near where my father's grandfather, a physician-farmer originally from England, had homesteaded. After Dickie's death, we visited his grave every year on Memorial Day to adorn it with spirea and tulips from our yard.

My parents returned home from Dickie's funeral at midnight to find light coming from every window in the house. Something was wrong. Our housekeeper, Anna, met them at the door with the news: Bobby, my 6-year-old brother, had begun to get cranky that afternoon. My mother began sobbing as my father ran up the stairs to join a colleague with Bobby.

The Summer Terror had struck again.

Grasping for hope and any remedy that might stem the onslaught against his family, my father frantically sought blood from any child who had survived polio. After many fruitless calls, he finally persuaded a farm family to allow him to draw blood from their child. No medical evidence suggested the transfusion would be beneficial, but when one's personal world is collapsing, desperate responses follow. Bobby was driven to the University of Minnesota hospital where, after some paralysis, he fully recovered.

"After Dickie's death, we visited his grave every year on Memorial Day to adorn it with spirea and tulips from our yard."

Mother gave thanks for an early September frost that, although it devastated our gardens, brought an end to the Summer Terror. Looking back, she often wondered why I was spared. When I was a teenager, she took me into the bedroom and lifted the scarf from the dressing table where the doctor had examined Dickie and showed me where ether had marred the varnish. She never had it refinished. It was a talisman along with a pair of booties and a locket of Dickie's blond hair from the most devastating moment in her life.

In the early 1960s, I thought of Dickie as I watched my grade-school children, Barbara and Mark, swallow a few drops of Salk vaccine. My eyes filled with tears. The advent of a new medical ritual could make them, and all future children, forever immune to the Summer Terror. Parents never again would fear the warming of the earth. Iron lungs were sent to the scrap heap. Children would not have to hurry past homes marked with the sign of Cain—"Quarantined." They would not see their classmates dragging crippled limbs, burdened with cumbersome metal braces. The March of Dimes would turn to other concerns.

Polio is just one of many diseases—typhoid, tuberculosis, rheumatic fever, smallpox, scarlet fever—that have, thankfully, just about disappeared in the United States. For countless generations, parents prayed for magic potions that would save their children from mysterious diseases. Legions of tombstones bear witness to how long they waited. How strange it is that with remedies now available, increasing numbers of parents reject them due to neglect, minuscule risk, or because immunization is deemed unnatural. Many children go without immunization until entering school, and immunization rates in some segments of our population are at Third World levels. Why is it that some parents want perfection in an imperfect world? In an era when medicine can do so much for children, why is medical cultism and the bizarre so attractive?

The benefits of preventing deadly disease far outweigh the minuscule risk of serious side effects from vaccines. Before DTP, a vaccine that prevents diphtheria, tetanus, and pertussis, whooping cough was a major cause of infant and childhood morbidity and mortality, with 7,518 deaths reported in 1934. Today, the disease causes an average of nine deaths per year in the United States. Sixty years ago, my parents would certainly have accepted a small risk to enable their children to grow into adulthood.

We owe a debt of thanks to the medical scientists and researchers who have made child rearing less desperate than in former years. As we continue to push for improved immunization rates among Minnesota's children, let us honor the courageous parents who lived through years of the Summer Terror. Let us remember the multitude of little Dickies whose lives were fated never to unfold. MM

Walter Benjamin is a professor at Hamline University in St. Paul, Minnesota. He specializes in biomedical and business ethics and is a member of Park Nicollet Medical Center's Medical Ethics Committee.

COVER STORY

Risky Business

Political and Random Violence Threaten Physicians

Editor's Note:

The following article may seem alarming, even shocking, but the issue of violence against health care workers cannot be overlooked. Political extremists and angry patients increasingly are taking out their frustrations on physicians, and random acts of violence are spilling over into our urban emergency rooms. Americans have the right to hold individual opinions and to express those opinions, but terrorism to further a cause must be condemned.

As Minnesota Medicine *went to press, the antiabortion group Operation Rescue was holding protests in the Twin Cities. Although its members are notorious for using extreme tactics, they have been protesting peacefully in Minnesota. Ironically, abortion rights extremists have been using the same tactics against Operation Rescue in Minnesota as the group has used in other states. Mainstream organizations for both the antiabortion and pro-choice movements have decried violence and harassment to promote their respective causes. Clearly, extremism favors no particular belief and follows no particular ideology.*

Health care and research facilities once were considered outside the boundaries of politics. But like it or not, physicians are caught in the cross-fire, whether as intended or accidental targets. Despite the potential danger, we must not be deterred and we must demand safety and protection from our law enforcement officers and courts of law. Emergency departments, clinics, and research labs must be safe places for patients, health care providers, and researchers.

How to identify Bomb
Rally
Medical
Militant
Attack on
CLINIC

Tina Welsh carries more keys than a jailer. This wasn't always the case. When she opened the Women's Health Care Center in Duluth in 1981, she had few security concerns. "We didn't have our doors locked, and we had an open reception area that didn't have sliding glass doors. We did not have all

By Miriam K. Feldman

of the rooms locked," says Welsh, who is director of the clinic. But all that has changed as abortion protesters have increasingly stalked her clinic, harassed staff, and threatened the doctors.

Welsh and her staff are among the thousands of health care workers who increasingly have become targets of violence, whether politically motivated or merely at random. Antiabortion and antivivisection extremists have stalked medical workers and researchers as well as their children, and they have damaged facilities with arson and bombs. This year, David Gunn, M.D., a gynecologist who performed abortions, was shot and killed as he entered a medical clinic in Pensacola, Florida. An antiabortionist has been charged with his murder.

Today, health care workers aren't only affected by deliberate violence with a political agenda. The random acts of violence that have become an everyday part of American life now even occur inside hospitals, once considered safe havens. The violence that is consuming this country spills over into emergency rooms, where doctors and staff are either intended targets or simply sitting ducks caught in the cross-fire.

The violence will take its toll on the medical profession, said American Medical Association spokesperson William E. Jacott, M.D., at a press conference in Washington, D.C., following Gunn's murder in March. "Continued escalation of terrorist activities will drive some very good, very caring, very talented, and very scared professionals out of emergency rooms and inner-city practices and out of essential areas—like biomedical research—which benefit everyone," said Jacott, vice chair of the AMA Board of Trustees and assistant vice president for Health Sciences at the University of Minnesota.

Minnesota is not immune to the violence, he said in a follow-up interview. "We have as much potential as anybody. When you look at some of the violence going on in the Twin Cities, we can't assume that because we're here in the Midwest that we aren't vulnerable."

Antiabortion Extremists Tag Doctors 'The Weak Link'

The issue of violence directed against health care workers assumed particular urgency in Minnesota this summer with the arrival of Operation Rescue, a group of antiabortion extremists known for blockading and trying to shut down clinics that perform abortions. Earlier this year, a representative of Operation Rescue announced: "We've found the weak link is the doctor. We're going to expose them. We're going to humiliate them."

In anticipation of Operation Rescue's training session in the Twin Cities this summer, the state Legislature passed the "medical facilities access bill," which makes it a gross misdemeanor to block access to health care facilities. Although the MMA doesn't take a stand on the abortion issue, it supported this legislation. Opponents claimed the bill would violate protesters' constitutional rights of free speech, but legislators who sponsored the bill said clinic access is an issue of safety. In a letter to the editor published in *Time* magazine before Operation Rescue's arrival in Minnesota, State Public Safety Commissioner Michael Jordan said Minnesota would guarantee "the rights and privileges afforded by our constitution. We will not, however, tolerate harassment, stalking, and violence."

Connie Perpich, director of public affairs for Planned Parenthood of Minnesota, was optimistic that the new law, which stiffens penalties for blocking clinic access, would provide protection this summer. Instead of a $25 fine and a few hours in jail, judges now can impose fines of up to $3,000 and a year in jail. That could make a big difference to clinics, which in the past have had to put up with protesters returning in the afternoon after being arrested in the morning, Perpich says.

Nonetheless, reproductive health care workers cannot help but fear for their personal safety, says Mildred Hanson, M.D., who performs abortions in her own clinic and is medi-

> "Continued escalation of terrorist activities will drive some very good, very caring, very talented, and very scared professionals out of emergency rooms and inner-city practices."
>
> –William E. Jacott, M.D.

cal director of Planned Parenthood of Minnesota. "All of us over the years have been threatened with murder," she says. Despite the death threats, Hanson never thought an abortion opponent would go so far as to actually kill a health care worker. "We really didn't feel these crazy people would have the guts to commit a murder," she says.

Most antiabortion groups condemned Gunn's murder. "The violence and killing in the name of pro-life makes a mockery of the pro-life cause," said Helen M. Alvare of the United States Catholic Conference. Brian Gibson, executive director of Prolife Action Ministries in St. Paul, Minnesota, also denounced the murder, saying, "We believe we have a greater responsibility to call people away from violence and to peaceful prayerful action." Nevertheless, some antiabortion extremists are waging a war of intimidation that has persuaded some abortion doctors to quit.

Murder is the ultimate hate crime, but it wasn't the only one committed by antiabortion extremists this year. The National Abortion Federation reports that arson caused more than $1.5 million in damage to clinics in the first three months of this year. During that time, protesters also sprayed tear gas and butyric acid into clinics and continued stalking health care providers and their families. In March, the Robbinsdale Clinic in Robbinsdale, Minnesota, survived the second apparent attempt in five months to blow up the clinic. The most recent effort was thwarted when clinic staff smelled a strange odor and discovered a propane tank linked by hose to the furnace—a setup that potentially could have exploded. And last November, someone poured gasoline through a hole made in the clinic's roof, but melting snow apparently extinguished a wick intended to ignite the gas.

The American Medical Association responded to the escalating violence at a press conference in March, when it called Gunn's murder "an alarming example of the increased level of violence being directed at health care professionals for political reasons." The AMA then called for a Justice Department investigation into groups known to target physicians and researchers. It also called for Congressional hearings on the subject, as well as enactment of a "health care protection act" and the establishment of federally defined safe zones for hospitals, clinics, research laboratories, academic health centers, and other health facilities. At the press conference, the University of Minnesota's Jacott said, "This is about whether or not dedicated American health care workers are going to be allowed to practice in safety or whether we must continue to live each day of our working lives in stark fear."

The AMA reissued its call for government action in June after two university researchers—geneticist Charles Epstein, M.D., of the University of San Francisco and computer scientist David Gelernter of Yale—were injured after each receiving an anonymous letter bomb for unknown reasons. "These most recent attacks are part of a growing trend of violence that has injured, maimed, and killed numerous health care workers," said Jacott for the AMA.

The American Medical Women's Association, which represents more than 12,000 women physicians and medical students, also called for specific action after Gunn's assassination, including new laws to protect the physical safety of persons in health facilities, a Justice Department investigation of the "deadly activity aimed at health professionals and patients," and medical group support in communities threatened with violence.

Tina Welsh, director of the Women's Health Center in Duluth, knows all too well about the violence and intimidation health care workers confront. She has been followed, accosted, and lectured on her way to work and photographed without her consent. Finally, last May, a judge issued an order barring abortion protesters from picketing her home. Now Welsh worries that physicians at her clinic might quit if the violence keeps escalating.

Looking back, Welsh realizes that the five years after the clinic opened in 1981 were relatively peaceful. But the harassment has escalated over the years, to the point that she recently felt compelled to attend a workshop conducted by the Bureau of Alcohol, Tobacco and Firearms (ATF), where she learned how to identify letter bombs and search buildings for intruders. She recalls the thoughts she had while sitting in that ATF workshop. "I am an administrator writing grants, supervising people. I am in a bomb workshop. I am learning how to identify a letter bomb. I am learning how to search a premise, and I'm thinking, 'What's wrong with this picture?' "

It's a question Welsh and her physicians are increasingly being forced to ask. For the past two years, Welsh's doctors have been wearing bullet-proof vests, and threatening calls are not unusual. One recent caller said: "Your doctor's going to be blown up today." Another caller asked how one doctor's plane was running. (The doctor flies in once a week. No local doctors will work at the clinic.) And one of Welsh's staff was assaulted when she tried to stop a protester from tearing apart the office.

"A majority of my staff has been with me since the first day we opened. They all have had painful experiences," Welsh says.

Fears that the harassment will drive away doctors are not unfounded. "The intimidation is working," says Hanson. "Not with me, but with a lot of other health care providers. Not only physicians." She knows a physician who quit performing abortions in Minneapolis because his children were stalked at school. Another long-time clinic staff member gave notice, afraid that Operation Rescue would stalk her children. "Everybody knows that's the vulnerable spot. When our children are threatened, that's our vulnerable spot," says Hanson.

Until government and the American public put a stop to the violence, health care workers such as Hanson and Welsh will continue to live in fear. "We have to figure out how to come together with our differences in a pluralistic society without resorting to [violent] tactics," says Thomas Webber, executive director of Planned Parenthood's clinic in St. Paul. "[The violence] needs to end."

Emergency Departments: Knife and Gun Clubs of the '90s

Joseph Clinton, M.D., had mixed feelings about metal detectors and armed guards. But he also was aware of the recent shooting of three physicians at Los Angeles County General Hospital by a frustrated patient, and he knows that wasn't an isolated incident. So this year, when the Hennepin County Medical Center security task force started talking about installing metal detectors and hiring an armed guard for the emergency department, Clinton, chief of Emergency Medicine, decided it was a prudent thing to do. "I reluctantly came to the conclusion that [these measures] are necessary," he says (see also Face to Face, page 6).

Clinton regards the rather controversial decision as good preventive medicine. "What you have to think when in a position such as mine is, 'Is it better to take a step such as this, or is it better to be in a crisis situation with a weapon?' You come to the conclusion that eventually there will be an unfortunate event, and I think it's our responsibility to reduce that risk."

Statistics back Clinton's decision. Hospitals nationwide have experienced a sharp upswing in assaults. Assailants have killed people in hospitals in Los Angeles, San Diego, New York, and Washington, D.C., as well as in Sandy, Utah, and Danville, Pennsylvania. Up to half the violent attacks are occurring in emergency departments, now otherwise known as "Knife and Gun Clubs of the '90s."

The *Journal of Emergency Nursing* devoted an entire issue to violence last year. And this November, the American Academy of Nursing will hold a two-day conference on violence that will include a session on violence in the health care workplace. In a recent study conducted by the Emergency Nurses Association, 67.3 percent of emergency nurses responding reported at least one assault during their careers, and more than one-third said they had been assaulted at least once during the previous year.

"Violence and killing in the name of pro-life makes a mockery of the pro-life cause."

–HELEN M. ALVARE

While the problems may be worse in other, larger cities, Elizabeth Shogren, a staff specialist for the Minnesota Nurses Association, has been stunned by the increasing number of assaults by patients against nurses in this state. Shogren believes health care workers are engaged in riskier business than the academic literature

"The emergency department used to have a privileged, protected status. It was a safe haven, a sanctuary. No longer."

–Mark Smith, M.D.

suggests. "If you read up about the most dangerous occupations in the country, you see police and fire fighters. And some say health care is a pretty safe place to work. Reading articles and looking at statistics, there seems to be a variance in terms of what's in the articles and what we're seeing here," she says.

People who work in urban emergency departments say they are like war zones. They blame the problem on everything from the level of violence in the rest of society, to the easy availability of handguns. They also blame the problem on unmedicated psychiatric patients, an increase in drug and alcohol abuse, and a decreased respect for physicians and nurses. The shootings at the Los Angeles hospital were blamed in part on a frustrated patient who had simply waited too long for care. Waits of more than six hours are not unusual, with emergency departments struggling to meet the demand for services. According to the American Hospital Association, 30 million visits were made to emergency departments in 1965. By 1990, that number had jumped to 92 million.

"The emergency department used to have a privileged, protected status. It was a safe haven, a sanctuary," says Mark Smith, M.D., an emergency physician who spoke on behalf of the American College of Emergency Physicians at a press conference following the Los Angeles shootings. "The ED itself seemed immune from the problems occurring outside its portals. No longer."

Employees at North Memorial Medical Center understand that emergency departments are not immune from violence. Three years ago, in a highly publicized incident, about 100 people followed an ambulance to the Robbinsdale hospital after a young man was shot and killed at a party in north Minneapolis. Members of the group reportedly rocked cars, blocked the emergency entrance, damaged a squad car, and trampled a garden. About 40 police officers were called in to quell the disturbance.

DR. SMITH
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Following the incident, North Memorial made a number of changes in its security policy, according to Pete Jaroscak, director of safety and security. It installed a security station that is staffed at peak times (weekends and nights), put in closed-circuit TV cameras that run videotape continuously, and installed automatic locks that can remotely shut down the emergency department. The hospital also has been working on better community relations with the Robbinsdale Police Department and meets with community leaders who can be called on to help diffuse future disturbances.

The system has worked well, and the hospital has been able to handle most problems on its own, although it has had to call on community leaders for help on a few occasions. When trouble occurs, it's typically gang-related, Jaroscak says. A victim might be brought in, still alive, and rival gang members might come in and "try to finish the job." Or sometimes there can be problems with boisterous family and friends. Doctors and nurses feel threatened at these times, says Jaroscak. "That's when we have to lock down."

Although the recent changes in security have helped, North Memorial employees are looking at devices such as bullet-proof glass and metal detectors. "But we have to keep in mind that this is a hospital," says Jaroscak.

That's the conclusion Abbott Northwestern Hospital reached when it recently re-evaluated its security policies. The staff firmly opposed installing metal detectors and hiring armed guards, but the emergency department did make a number of changes, in part due to the incident at North Memorial and also because it had been treating a growing number of victims of gang-related crimes and domestic violence. "We felt real vulnerable, and we felt we should get ahead of [the problem] rather than wait until something happened," says Robert Jeddeloh, M.D., medical director of Abbott Northwestern's Emergency Medicine Department.

To thwart potential violence, Abbott Northwestern hired a full-time security guard, installed a glass wall and glass barriers around the registration area, and installed remote locks to shut down the department. (They've never been used.) The hospital also developed programs to help staff feel more in touch with the minority populations it serves, and even redecorated the waiting room with artwork that reflects minority cultures. The staff also has met with neighborhood groups and is learning conflict resolution strategies.

With these changes, Abbott Northwestern hopes to avoid the need for tougher security measures, like metal detectors and armed guards. "We're all firmly opposed to that," Jeddeloh says. "We still like to think that people coming to us for care sense a secure, safe place. And we have not seen that we're in danger, and we don't want to seem like an armed fortress."

Animal Rights Activists Undermining Medical Research

Marilyn Carroll wants to know why drug addicts relapse after treatment and how to prevent relapse from happening, so for the past 17 years she has been observing rhesus monkeys, hoping to find some answers. Her findings have been published in more than 70 journals and have been used in successful drug treatment programs. Carroll, a professor of psychiatry in the Department of Psychiatry, Psychology, and Neuroscience at the University of Minnesota, has received a Merit Award from the National Institutes of Health for outstanding achievement in research.

Carroll's professional accomplishments mean nothing to Heidi Greger, vice president of the Animal Rights Coalition (ARC) of Minnesota, a group that claims 1,600 members. Greger would like nothing better than to halt Carroll's research with animals. "It's completely worthless as far as we're concerned," she says. "It's a terrible waste of money." Groups like ARC believe there is no place for animals in research. In fact, extremist animal rights groups like the Animal Liberation Front, People for the Ethical Treatment of Animals, and Friends of Animals have repeatedly expressed their intent to abolish all animal research, regardless of whether the animals are treated in a humane fashion.

Greger, who has a doctorate in medical sociology from Purdue University, says that researchers experiment with animals because it's convenient. She contends that if all the funds for animal research were to dry up tomorrow, scientists would find a way to conduct research without animals.

However, most scientists contend there isn't always another way. Alan Goldberg, M.D., director of the Center for Alternatives to Animal Testing at the Johns Hopkins School of Hygiene and Public Health in Baltimore, Maryland, points out that animal rights activists often confuse the crucial distinction between product testing and basic biomedical research. Specific questions about toxic substances can be answered through in vitro methodology, he says, but more complex questions about disease origins and body systems continue to require whole-animal testing.

Human-based research isn't always a feasible alternative, either. "You can't perform experiments in a human being with a lethal virus. You stand to ultimately kill the person," says Anthony Fauci, M.D., director of the Institute for Allergies and Infectious Diseases at the National Institutes of Health. Fauci believes animal research is critical to understanding the disease process. "In an animal model, you can observe the disease from the very first minute of infection and follow its progress, something you can't do in humans because the disease is diagnosed very late."

Carroll has tried working with human subjects but says they are unpredictable and unreliable. Drug addicts, in particular, are "a very difficult population to work with," she says.

Over the years, Carroll has been the target of several protests. Six years ago, about 100 protesters tried to force their way into her lab. To keep them at bay, she held a press conference. Eight months pregnant at the time, she endured taunts from them about her condition. "Why don't you keep having babies and use them as experimental subjects?" the protesters shouted.

Activists have picketed her home and distributed leaflets to her neighbors, saying, "Your neighbor, Dr. Carroll, makes her living by torturing animals." Her children have been taunted by classmates who tell them their mother tortures animals.

Some animal rights extremists not only have harassed researchers like Carroll, but they have actually destroyed some researchers' labs, delaying and in some cases halting research on crib death, infant blindness, cancer, AIDS, and other diseases. Some groups—the Animal Liberation Front, in particular—have even been placed on lists of terrorist organizations by the FBI and Britain's Scotland Yard. Since the 1980s, such groups have been linked to more than 100 acts of vandalism, arson, and theft.

Researchers point out that, far from being worthless, animal-based research has helped develop many lifesaving drugs and procedures, including polio vaccine, insulin for diabetics, antibiotics, heart surgery, organ transplantation, and chemotherapy. The American Medical Association supports the appropriate and humane use of animals in research and contends that animal research is critical for the development of new and more effective medical treatment of disease. At the AMA's recent press conference on violence against health care workers, Jacott stated that threats against the research community will cause an exodus of researchers, undermining American medicine's ability to cure new and existing illnesses. He pointed to activists who have used personal threats, vandalism, arson, theft, and hate mail to curtail and even halt medical research projects.

Animal rights activists seem to have affected the public's opinion of animal research. An AMA survey conducted in 1989 found that 77 percent of the public thought animal research is necessary for medical progress, but only 58 percent supported the continuing use of animals. Nearly 30 percent were opposed to using animals, and 13 percent were unsure. As a result, the AMA called for ways to educate the public about the value of animal research.

If animal rights activists truly are affecting public opinion, researchers like Carroll will have to continue explaining their work and answering charges. As Carroll puts it: "My peers have recognized me as being excellent in what I do. Why are these people doing this to me?"

A Unified Effort Against Violence

Continued violence against health care workers will affect the practice of medicine in this country, says the AMA. Already, fewer physicians are choosing to work in emergency rooms, and physician flight will result in restricted access to medical care and could limit certain medical services. The AMA has called for a unified effort from each health care profession, from government, and from the American public to send a message that the harassment, threatening, maiming, and killing of those who take care of patients must stop.

But health care workers are not the only group affected by the violence gripping our nation. In a follow-up interview, Jacott spoke about the need to address such problems as guns in our homes and our schools. "We're living in a more violent society. We haven't done a whole lot to diminish that. We, as a society, through all of our mechanisms, need to ... take some steps to minimize the potential for violence." **MM**

Miriam Feldman is a Minneapolis free-lance writer and a frequent contributor to Minnesota Medicine.

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Examples:

1. Benson RC Jr. Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 1986;61:859-64.
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Pediatric Tracheobronchial Foreign Bodies

A Case Report

Gregory P. Thompson, M.D., James P. Utz, M.D., & John C. McDougall, M.D.

ABSTRACT

Pediatric tracheobronchial foreign bodies (PTBFBs) remain a significant cause of childhood morbidity and mortality. Because physicians do not always obtain a history of aspiration, and because the signs and symptoms of a PTBFB are nonspecific, diagnosis may be delayed, which increases the risk of complications when the foreign body is removed. Flexible fiberoptic and rigid bronchoscopy are often used in tandem for the identification and removal of PTBFBs. Recent advances in bronchoscopic equipment and technique have made removal of PTBFBs safer and more successful. Education of parents, child care providers, and medical personnel can reduce morbidity and mortality due to PTBFBs.

Case Report

A 7-year-old boy developed acute choking and coughing. He had been running while eating a raw carrot. Within a few minutes, his acute symptoms resolved, although some intermittent coughing remained. However, the following morning his parents noted "wheezing," and the boy was subsequently evaluated in the local emergency room. A foreign body was suspected, and he was referred for further evaluation and treatment.

The patient was in no acute distress during examination—his blood pressure, pulse, temperature, and respiratory rate were within normal limits. Auscultation of his lungs revealed expiratory wheezing posteriorly in the left mid-thoracic area. A posterior-anterior chest radiograph with inspiratory and expiratory views disclosed left-sided air trapping during expiration with shift of the mediastinum to the right, consistent with a left mainstem bronchus foreign body (Figure 1).

The patient was transferred to the bronchoscopy suite and placed under general anesthesia. Flexible fiberoptic bronchoscopy was performed via the oral endotracheal tube, which identified a foreign body in the distal left mainstem bronchus producing near total obstruction of the lumen of the left mainstem bronchus. The oral endotracheal tube was withdrawn, and a rigid open tube bronchoscope was inserted. Again, the foreign body was identified in the distal left mainstem bronchus. A piece of carrot measuring 6mm x 7mm (Figure 2) was grasped and removed with telescope-guided forceps placed through the rigid bronchoscope. The entire tracheobronchial tree was then re-inspected, and no additional foreign bodies were identified. The patient tolerated the procedure well, and no adverse sequelae were noted.

Discussion

Pediatric tracheobronchial foreign bodies and their removal are classically described by Holinger[1] and C. Jackson and C. L. Jackson.[2] Children from 1 to 3 years old are at highest risk for PTBFBs.[1,3,4] Boys are more commonly involved than girls, with a reported male-to-female ratio ranging from 1.7-to-1 up to 2.4-to-1.[5-9] Although a history of aspiration is common, it may be lacking in a substantial number of patients.[3,6,7] The most common symptoms of PTBFBs are cough and dyspnea.[3,10] Symptoms are frequently present for more than 24 hours and may commonly be present for more than three days before diagnosis is made.[7,9] Although some patients may be initially asymptomatic, often foreign bodies are discovered after wheezing, decreased breathing sounds, tachypnea, and/or fever are noted.[5]

The most commonly aspirated items are organic food materials, especially nuts and seeds.[3,4,6-8,11] Peanuts deserve particular comment, as they are responsible for approximately one-third of all PTBFBs.[6-8,11] Other frequently implicated food items include meats, chicken bones, fruits, and raw carrots.[3,4,6-8,11] The most frequently encountered food items responsible for fatal asphyxiation include hot dog products, candy, nuts, and grapes.[12] Of these, hot dog products account for 17% of all fatal PTBFBs.[12] Non-food items most frequently aspirated include needles, nails, stones, coins, buttons, and other small plastic and metal objects.[1,3,4,6,7,11]

Radiographic studies usually include an inspiratory and expiratory chest radiograph and a lateral

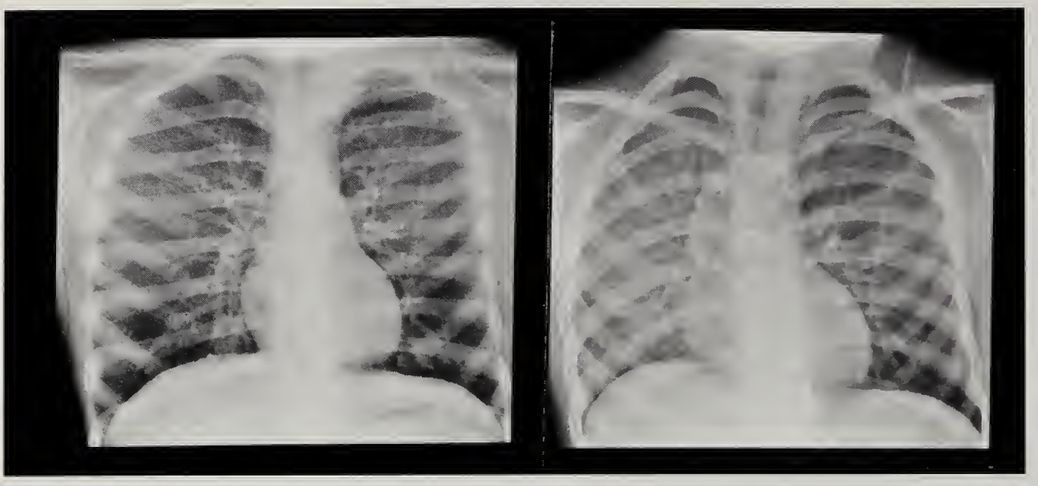

Figure 1: Inspiratory (left) and expiratory (right) chest radiographs demonstrate air trapping and shift of the mediastinum to the right on the expiratory film, consistent with a left-sided foreign body.

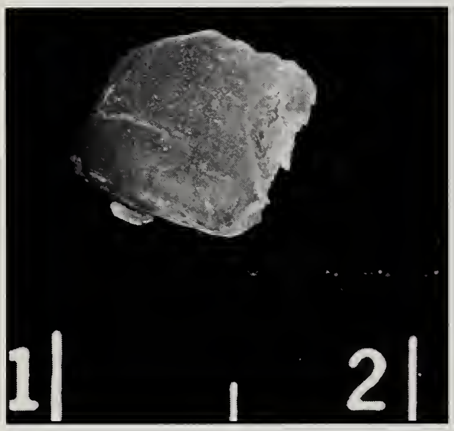

Figure 2: Carrot fragment (6mm x 7mm) removed from distal left mainstem bronchus using rigid open tube bronchoscopy and telescope-guided forceps.

chest radiograph in the case of a radiopaque foreign body. The most common abnormalities include hyperaeration, atelectasis, and unilateral infiltrates.[3,5,10] Approximately one-third of patients have a normal chest radiograph.[5,10] Most foreign bodies are not radiopaque and are not readily visible on routine chest radiographs.[3] In a pediatric patient with no history of trauma and a pneumomediastinum on a chest radiograph, a PTBFB should be included in the differential diagnosis. In one series, 10 of 155 patients with a PTBFB had a pneumomediastinum.[13]

The role of CT or MRI scanning in the diagnosis of PTBFBs has yet to be determined. Anecdotal reports of their use in the evaluation of PTBFBs exist in the literature,[14,15] but these reports are limited. A negative result does not rule out a PTBFB and should not dissuade physicians from pursuing bronchoscopy in patients with a suspected PTBFB.

The differential diagnosis of a PTBFB includes asthma, croup, bronchitis, and pneumonia. In one study, almost 25% of PTBFB patients were initially treated on the basis of an alternative diagnosis.[9] A delay in establishing the correct diagnosis of a PTBFB carries with it an increased complication rate.[16] Complications associated with non-fatal PTBFBs include atelectasis, subglottic stenosis, pneumonia, bronchiectasis, the need for open surgical treatment, and prolonged hospitalization. Patients who are not initially treated, sometimes because symptoms of the PTBFB subside, may develop sudden fatal airway obstruction.[11] Thus, thorough and timely evaluation is necessary in cases of a suspected PTBFB, even if symptoms begin to subside.

Once a PTBFB is suspected or identified, bronchoscopy should be performed. If the patient is in respiratory distress, it should be performed immediately. For stable patients with no respiratory distress, a minimum wait of four hours is recommended for gastric emptying. Items that can absorb liquid and swell, such as dried beans, should be removed promptly.

In the young pediatric patient, bronchoscopy is performed under general anesthesia. After premedication with an anticholinergic medication and preoxygenation, induction is often accomplished with halothane.[18] Good communication between the bronchoscopist and anesthesiologist is critical to ensure control of the airway and adequate oxygenation and ventilation.

Flexible fiberoptic bronchoscopy (usually performed in children under general anesthesia through the oral endotracheal tube) is useful for establishing the presence, type, and location of the foreign body. If a foreign body is found with flexible fiberoptic bronchoscopy, the endoscopist should switch to a rigid bronchoscope for removal of the foreign body.[19] Flexible fiberoptic bronchoscopy is performed at the same anesthetic sitting as the planned rigid bronchoscopy, and it does not necessitate an additional anesthetic procedure. Although some physicians debate its role, we find flexible fiberoptic bronchoscopy allows better inspection of the peripheral airways and removes the need for rigid bronchoscopy if the inspection is negative. However, if the clinical suspicion is very high, or if the child is young and the flexible bronchoscope can be expected to significantly occlude the endotracheal tube, then rigid bronchoscopy should be the initial procedure.

Advancements in bronchoscopic equipment and technique have increased the success of bronchoscopic removal of PTBFBs. In recent reports, 88% or more of rigid bronchoscopies have been successful in removing PTBFBs.[5-7]

The majority of PTBFBs are located in the mainstem bronchi, with the right side more commonly involved.[3,7,10] Tracheal, subglottic, and lower lobe bronchi are the next most commonly involved, with upper lobe bronchi rarely involved.[3] Multiple foreign bodies may be found in 5% to 26% of cases.[8,19] For this reason, careful tracheobronchial inspection should be repeated after a foreign body is removed to rule out the presence of another foreign body.

Although the bronchoscopic removal of a PTBFB is usually safe and successful, some risks are associated with removal. Morbidity and mortality have been reported secondary to aspiration of large amounts of purulent material or blood following removal of the foreign body.[8,11] Because the inflammatory reaction tends to increase the longer the foreign body remains in situ, early bronchoscopic intervention is safer than delaying removal.[16] Another risk is dislodgment of the foreign body during removal attempts. The foreign body may then cause more proximal airway obstruction.

If bronchoscopy is unsuccessful in extracting the foreign body, often surgery is required. Bronchotomy or wedge resection of the affected region are the most common surgical techniques used. A chest percussion technique followed by spontaneous expectoration of the foreign body or subsequent bronchoscopic retrieval has been described. This may obviate the need for open surgical retrieval of more peripherally located foreign bodies not initially removed with bronchoscopy.[20]

Emergent non-bronchoscopic management techniques for life-threatening PTBFBs have been described and consist of back blows and chest thrusts for infants and the Heimlich maneuver and abdominal thrusts for older children. The Heimlich maneuver is not recommended for infants. If a foreign body is visible, it should be removed, but blind finger sweeps should not be performed.[21] Parents and child-care personnel should be trained in these techniques.

Education of physicians, paramedical personnel, parents, and child-care providers regarding PTBFBs is of obvious importance. According to a follow-up study, one physician-focused tracheal-bronchial foreign body awareness program resulted in a decrease in the number of hospitalizations secondary to foreign bodies and in the mean number of hospital days prior to diagnosis.[22]

Hard candy, raw vegetables, nuts, seeds, hot dogs, and other frequently aspirated food items should not be given to children under the age of 4 or 5 who lack the molars to crush these food items. While eating, children should be free of distractions and should avoid laughing, talking, running, and jumping. Small objects, toys, and objects with small components should be kept out of children's reach. If the aspirated object is known, the patient's parents should bring a duplicate to the physician's office to facilitate plans for endoscopic removal. Adherence to these principles will decrease the incidence of PTBFBs and their attendant morbidity and mortality. MM

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MinnesotaCare's Antitrust Exemption Process

Protection With a Price

Sue Halverson, J.D.

Faced with the demands of today's health care marketplace, many physicians and health care providers have sought cooperative arrangements to help rein in costs and improve health care quality and access—despite the fact that these arrangements, by their nature, raise the prospect of antitrust liability. Through MinnesotaCare, the 1992 Legislature acknowledged the benefits of such cooperative arrangements and expressed its intention to provide immunity from state and federal antitrust laws through governmental regulation.

The state will confer antitrust immunity to cooperative arrangements approved and supervised by the commissioner of health. Under the "state action exemption," a doctrine adopted by federal courts and later incorporated as a statutory exemption in the 1971 Minnesota Antitrust Act, the state can grant antitrust immunity if two conditions are met: 1) the state must articulate a clear and affirmative policy to allow the anticompetitive conduct or arrangement, and 2) the state must provide active supervision of the conduct or arrangement.

The Minnesota Legislature has already fulfilled the first requirement by clearly expressing its desire to confer absolute immunity from the antitrust laws for cooperative arrangements that are approved by the commissioner of health. However, the second requirement presents a problem because state action immunity requires the state to "actively supervise" the cooperative arrangements to the degree deemed appropriate by courts applying the doctrine. As a result, providers embarking upon an approved cooperative arrangement are placed in a novel position. Their potential antitrust immunity depends upon adequate governmental supervision and regulation, over which the providers have no control. This inherent dilemma in the state action exemption clearly leaves an element of risk for providers involved in cooperative arrangements that might otherwise violate the antitrust laws. Further, if initially active state supervision dwindles over time, cooperating providers could lose their antitrust protection due to inactive or inadequate supervision.

> "The state will confer antitrust immunity to arrangements approved by the commissioner of health."

Despite these limitations and inherent risks, providers should be encouraged by the strength of the Legislature's intent to confer immunity, as well as the Health Department's and commissioner's commitment to provide sufficiently active supervision. In addition, providers may contribute to the adequacy of state supervision by submitting complete, timely, and accurate reports to the Department of Health after a cooperative arrangement is approved, and by actively seeking feedback from state regulators.

Implications of Applying for Exemption

The application process is already available to providers seeking antitrust exemption for a cooperative arrangement, but before providers decide to seek protection, they should carefully consider the following implications of the exemption process:

- Exemption is prospective. Actions taken by an applicant prior to submitting an application are not protected by the exemption. In addition, the commissioner may refuse to consider an application for an arrangement that is already in place. Thus, the application process should precede actual implementation of a cooperative arrangement.
- Proposed arrangements become public. A notice of the application for exemption will be published in *The Minnesota State Register* so that the public can comment on the proposed arrangement. All potential arrangements must be disclosed publicly before they are approved or implemented.
- Approved arrangements are regularly reviewed. Providers who receive approval for their cooperative arrangements are required to submit reports to the commissioner of health at least annually. In addition, the commissioner will solicit comments at two-year intervals from the public concerning the impact of the cooperative arrangement on health care costs, access, and quality.

Thus, providers should weigh the benefits of antitrust exemption against the drawbacks, which include requirements to disclose the arrangement before the deal is made and to accept ongoing reporting and public scrutiny. In addition, the exemption process takes time and adds to administrative costs.

The application process is intended for cooperative arrangements that might otherwise violate the antitrust laws. If the attorney general and the commissioner conclude that the proposed arrangement does not present any potential for liability under state or federal antitrust laws, the commissioner may decline to review the application altogether. Thus, the commissioner will avoid processing applications and supervising arrangements when antitrust exemption is clearly unnecessary in the first place.

The Exemption Process

Providers can apply to the commissioner of health for an exemption when their proposed arrangement is defined sufficiently enough to provide the information required in the application. MinnesotaCare specifies that the application must disclose the names of the parties in the proposed cooperative arrangement and provide detailed background information about the parties and the proposed arrangement, including:

- the services or products involved in the joint arrangement;
- the geographic territory involved;
- market share of the applicants before and after the proposed arrangement;
- information about actual and potential competitors who might provide the services or products involved; and
- projected effects of the arrangement on each applicant's current business, including volume changes, price changes, and revenue impact.

Most important, the application must explain why lower costs, increased access, and increased quality of health care are more likely to occur under the proposed arrangement than under existing market conditions. This explanation is critical because lower costs, increased access, and increased quality are the three chief criteria for approval.

To demonstrate lower costs, an applicant must show that the arrangement would likely pass cost savings on to consumers. Increased access can be demonstrated by showing that the arrangement would make health care services more timely and more available financially and geographically. Of the three factors, increased quality is perhaps the most subjective, but generally the proposal should explain how the arrangement will improve outcomes and patient satisfaction.

A written description of the proposed arrangement will be published in *The Minnesota State Register*, and the public will be allowed a 20-day period to submit written comments. The applicant then has 10 days to respond in writing to those comments.

> "Providers should determine whether a potential joint arrangement can be structured to minimize antitrust concerns and eliminate the need to pursue exemption."

After the comment period, the commissioner has three procedural alternatives:

1) The commissioner may issue a decision based on the application and written comments.

2) The commissioner may order a limited hearing and specify the issues to be addressed. In this case, the applicant must submit written evidence addressing the issues, which will be followed by a 40-day period for additional written comments from the public. At the limited hearing, the applicant may be questioned about the written evidence, and any person who has submitted comments may make a statement addressing the applicant's responses to the questions.

3) The commissioner may order a full contested case hearing to be tried before an administrative law judge. The attorney general may appear as a party, and additional parties may also participate in the contested case proceeding.

Applicants are entitled to a contested case hearing as a matter of right if they so request at the end of the initial written comment period.

Whatever alternative is followed, the commissioner must ultimately issue a written decision either approving or denying the application. Approval may be contingent on the cooperative arrangement meeting certain conditions, such as modifying the proposed arrangement or taking steps to prevent abuse of economic power or to ensure appropriate state supervision and regulation. By law, the commissioner must require approved arrangements to submit specific data relating to cost, access, and quality at least annually to facilitate ongoing supervision and regulation. The reporting requirements and supervision begin immediately upon approval.

After the commissioner renders a decision, the applicant or any other person may appeal the decision to the Minnesota Court of Appeals within 30 days.

Conclusion

Providers may wish to consult with experienced antitrust counsel to determine whether a potential joint arrangement can be structured to minimize antitrust concerns and eliminate the need to pursue exemption. However, some types of arrangements, such as those in inherently concentrated markets, do not readily lend themselves to antitrust flexibility. In such circumstances, the antitrust exemption process may be the only alternative for eliminating or minimizing antitrust risk.

The antitrust exemption process offers protection to cooperative arrangements, but it entails significant state and public scrutiny, administrative costs, and even some residual antitrust risk. Protection has a price. **MM**

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What Are You Worth?

A Management Perspective on Valuing a Medical Practice

David C. Cordes, Ph.D.

Minnesota's health care system has undergone considerable change lately, from major hospital consolidations and health plan mergers to the emergence of giant buyer coalitions.[1] In fact, with the recent passage of new MinnesotaCare legislation, the state is encouraging (if not demanding) larger, more integrated health care systems. Several hospitals and larger group practices have acted on the situation and are offering to buy medical practices, particularly those specializing in internal medicine or family practice.

The decision to sell a practice is one of the most important and far-reaching career decisions a physician can make—one that cannot be taken lightly. A variety of concerns must be addressed, such as deciding whether to relinquish the freedom and responsibility associated with private practice, and numerous steps must be taken. Perhaps the most important step is to determine the value of the medical practice. It's hard to get a fair price if you don't know what you're worth.

Practice Valuation Techniques

Practice valuation is an essential step before selling a practice, as well as in a variety of other situations. For example, valuing a practice is also necessary when an employed physician elects to become a shareholder; when a shareholder dies, becomes disabled, relocates, or retires; when property valuations are needed for divorce proceedings, estate planning, bankruptcy proceedings, or for bank loan applications; and when litigation takes place between partners.[2,3]

Physicians and practices in one of these situations or considering a sale have at their disposal a great deal of information on practice valuation. Two excellent sources on the subject include "Bylaws, Buying and Selling a Practice,"[4] a bibliography available from the Medical Group Management Association, and "The Valuation of a Medical Practice,"[5] by Robert F. Reilly.

> "The decision to sell a practice is one of the most important and far-reaching career decisions a physician can make."

In his article, Reilly describes three approaches to practice valuation: discounted cash flow, comparable market value, and asset value.

Discounted cash flow

Physicians wishing to start a medical practice can choose either to purchase an established practice or to start a new practice. Generally, an established practice with a continuing cash flow will return more net cash than a new practice, at least in the beginning years. The discounted net cash flow approach for valuing a medical practice is based on the premise that a buyer will pay for the "incremental net cash flow" from purchasing an established practice as compared with the cash available from a start-up practice.[5]

To determine the value of an established practice using this method, the seller must project its practice revenues for a certain number of years and compare them with the potential revenues for a start-up practice of the same size and specialty. Because current dollars are worth more than future dollars, the future stream of income for both practices must be discounted to the current date for comparison. (The discount rate used in calculating a practice's value is a negotiated rate that represents both the purchaser's and the seller's desired return on their respective investment in the medical practice.) When negotiating a purchase, a buyer is generally willing to pay some amount less than the difference between the discounted cash flows.

Table 1 presents a hypothetical example for valuing a general internal medicine practice. In this example, two crucial assumptions drive the calculation. The first assumption is that a new internist requires five years to create an economically successful practice. The second is that the discount rate will be 20 percent. Other assumptions can be made about revenue and cost forecasts to test the variability in projected practice value.

The incremental net cash flow available from the established practice shown in Table 1 is $412,000 spread over five years ($133,000 the first year, $76,000 the second year, and so forth). This cash flow is the difference between the nearly $1 million in revenue the existing practice would generate in the next five years versus the revenues a start-up practice would generate ($210,000 the first year, $219,000 the second year, and so forth). After subtracting the incremental expenses from these revenues and adjusting for start-up expenses, the table indicates a $412,000 gain over the five years. Since purchasing a practice is a high-risk ven-

Table 1

Medical practice of Ben Brown, M.D.
Fair market value: discounted net cash flow analysis (in thousands)[*]

	Account projection	Year 1	Year 2	Year 3	Year 4	Year 5
	Practice cash revenues[†]	330	363	399	400	400
Less:	Start-up practice revenues[‡]	-120	-144	-172	-207	-249
Equals:	Incremental practice revenues	210	219	226	193	151
Less:	Incremental operating expenses	-105	-109	-113	-97	-75
Equals:	Incremental after-tax profit	63	66	68	59	46
Plus:	Depreciation expense	+ 20	+ 20	+ 20	+ 20	+ 20
Less:	Capital expenditures	- 50	- 10	- 10	- 10	- 10
Plus:	Start-up capital expenditures[§]	+100				
Equals:	Incremental net cash flow	133	76	78	69	56
Times:	Present value factor, at 20%	x.833	x.694	x.579	x.492	x.402
Equals:	Net present value	111	53	45	33	23
	Total net present value					265

[*] This example assumes that there is no acquired practice long-term debt. Also, it assumes a 20% discount rate—i.e., an alternative cost of equity capital rate, risk-adjusted.

[†] Practice revenues represent last year Brown revenues at $300,000 compounded at 10% per year, to a maximum of $400,000.

[‡] Start-up practice revenues represent the estimate of the net revenues generated by hypothetical start-up ("opportunity cost") practice.

[§] Start-up capital expenditures represent the estimate of the leasehold improvements, office furniture and fixtures, and medical equipment required to create the hypothetical start-up practice; these expenditures will not be incurred if Jones buys the Brown practice.

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Table 2

Medical practice of Ben Brown, M.D.
Comparable market value

Annual revenues	$300,000
Range of comparable values	70%-100%
Best estimate based on quantitative and qualitative factors	90%
Fair market value (.90 x $300,000)	$270,000

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ture, a high percent of return is expected, and Reilly uses a 20 percent discount rate to determine the current value of the five-year stream of dollars.

Comparable market value

The market approach is based on finding actual transactions for comparable practices that have been sold. Key practice comparability criteria include specialty, geographic location, group size, fees, revenue composition (mix of payers such as health maintenance organizations and Medicare), prestige of admitting hospital, workforce compensation and turnover, and physicians' reputation.

Of the three approaches, comparable market value is the simplest, providing that the appraiser has access to comparable market data. An appraiser's data base typically contains information from the sale of various medical practices and includes a calculation for each sale price as a percentage of practice revenues. This percentage approach is a convenient way to standardize comparable values, since the actual dollar amount paid for a practice with $1 million in annual revenues is significantly higher than for a practice with $300,000 in revenues. Table 2 demonstrates the method for calculating the comparable market value for our hypothetical internal medicine practice, which last year had $300,000 in annual revenues (see footnote[†] in Table 1).

According to Table 2, similar practices have sold for prices ranging from 70 percent to 100 percent of their respective practice revenues (see "range of comparable values"). The "best estimate" in the table represents the appraiser's selection of a percentage based on the comparability criteria noted above. The appraiser estimates that the hypothetical practice's market value is 90 percent of its annual revenues, or $270,000.

Readers who have reviewed real estate appraisals will recognize the comparable market approach. It has all the inherent strengths and weaknesses of comparing two buildings and is subject to similar issues:

- Does the appraiser have a good data base of comparables?
- Are the buildings (practices) in a similar location?
- Do the buildings (practices) have the same square footage (group size)?

The background, experience, and data base of the appraiser become very crucial in the comparable market approach.

Asset value

The asset approach to practice valuation is based on determining the total value of the group's assets, then subtracting the total value of its liabilities. Medical group assets fall into four categories: financial assets, real property, tangible personal property, and intangible assets. Specific examples of these assets are given in Table 3, which illustrates the approach using historical cost and fair-market value to assess assets for our hypothetical internal medicine practice. In the "historical cost" column, book value is used to assess plant, property, and equipment. Book value is historical cost less depreciation and is determined using Internal Revenue Service rules.[6]

Table 3

Medical practice of Ben Brown, M.D.
Fair market value: asset accumulation approach (in thousands)

	Historical cost	Fair market value
ASSETS		
Current assets		
Cash	10	10
Accounts receivable	40	40
Prepaid expenses	10	10
Medical and office supplies	10	20
Total current assets	70	80
Plant, property, and equipment		
Office furniture and fixtures	100	60
Medical equipment	100	60
Gross plant, property, and equipment	200	120
Less: Accumulated depreciation	-100	—
Net plant, property, & equipment (book value)	100	120
Intangible assets		
Patient charts and records	—	69
Trained and assembled work force	—	7
Going-concern value	—	20
Goodwill	—	21
Total intangible assets	—	117
Total assets	170	317
LIABILITIES AND OWNER'S EQUITY		
Liabilities		
Accounts payable	10	10
Wages payable	10	10
Taxes payable	20	20
Total liabilities	40	40
Owner's equity	130	277 *
Total liabilities and owner's equity	170	317

*Practice value.

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According to this table, the more appropriate approach is fair-market value, shown in the second column. Comparing the historical cost with the fair-market value in the table reveals two important differences. First, non-disposable medical and office supplies have a higher value using the fair-market approach. The reason? Fair-market value is a replacement cost, which usually is higher than historical cost.[7] Second, the plant, property, and equipment in Table 3 are also appraised higher at market value. The higher market value results from utilizing equipment significantly longer than that assumed for tax purposes (book value).

An item often underpriced on the balance sheet is computer software. The group may be paying monthly software maintenance, which means the software should be valued at today's price, not a depreciated value. Some items that are often inadvertently ignored in valuations are leased equipment, Section 179 assets (up to $10,000 of assets expensed each year), and insurance prepayments.[7] For practices with substantial equipment, formal appraisals should be done.[8]

The market value of intangible assets is the key to practice valuation using the asset method. Reilly has categorized intangibles as patient charts and records, trained and assembled work force, going concern value, and goodwill.

Reilly provides detailed calculations for each category. The current value for patient charts and records is based on 5,000 charts at $13.80 per chart. The training calculation is based on a percentage of annual staff salaries (three staff members at $56,000 x 12.5 percent). The going concern value assumes a three-month start-up time for a new office, during which time the existing practice will generate $20,000 of positive net cash flow.

In Reilly's calculations, goodwill is based on the presumed higher income a physician earns in private practice versus a salaried position. This definition differs from the standard use of the term. Goodwill is generally considered the likelihood that customers will remain loyal to a business despite a change in ownership.[9] For medical practices, goodwill means patients will continue seeing the same physician even if the physician moves to a different practice.

A recent article in *The Physician's Advisory*[3] by Leif Beck defines goodwill as the total value of intangible assets, which, in our hypothetical case, would be 39 percent of the practice's $300,000 in revenue ($117,000 shown in Table 3 divided by $300,000). Beck reports that the typical goodwill value for family practice and internal medicine is currently about 30 percent. (His figures are from "The Goodwill Registry," which reported more than 1,200 transactions from 1986 to 1990). Beck notes that this is too low a percentage for practices with stable populations and recommends using figures in the range of 40 percent to 50 percent. This is consistent with the 39 percent value of intangibles from Table 3.

Analyzing the three approaches

It is interesting to note that Reilly's three approaches produce similar practice values, ranging from $265,000 to $277,000, for our hypothetical internal medicine practice with annual revenues of $300,000. By using all three approaches, a group can find an excellent approximation of its worth.

If a practice must choose one method, the asset value approach may be the best. The discounted cash flow approach requires assumptions about revenue and expenses for five years into the future, plus agreement on a discount factor, both difficult issues. The comparable market approach is heavily dependent upon the reliability of the appraiser's data base, and the appraiser's estimate of value is highly subjective. Most physicians easily comprehend the asset value approach, which is quantitative except for the goodwill component.

Tax and Legal Issues

Because tax and legal issues are extremely important to the valuation process, professional help is a must. Important accounting and tax considerations when valuing a medical practice include determining when to use ordinary income tax rates versus capital gains tax rates, and determining whether items are deductible, depreciable, or amortizable. In Table 4, Ray Loving demonstrates how various assets involved in a practice's sale can be treated for tax purposes.[6] Since the capital gains tax rates are lower than ordinary income tax rates,

Table 4

General tax rule treatment of practice assets

Asset	Seller	Buyer
Equipment, furnishings	Capital gains, ordinary income	Depreciable
Accounts receivable	Ordinary income	Deductible (but reported as ordinary income when collected)
Supplies	Ordinary income (if deducted at original purchase)	Deductible
Office leases (price to assume lease)	Ordinary income	Amortizable over remaining lease term
Leasehold improvements	Capital gains	Amortizable over remaining lease term
Land, buildings	Capital gains	Building depreciable; land not depreciable or deductible
Intangibles Covenant to compete	Ordinary income	Amortizable over non-competition period
All other	Capital gains	Not depreciable or deductible

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how assets are categorized determines the practice's (seller's) tax amount. Whether items are deductible, depreciable, or amortizable impacts the cost to the buyer and, thus, influences the buyer's willingness to pay.

The legal environment also has an impact on a practice's value. Several issues immediately come to mind:

- The government's effort to reform Medicare reimbursement (resource-based relative value scale, or RBRVS) has impacted the value of certain medical practices.[10] Whether it increases or decreases the value depends on the practice's specialty. Certain cognitive specialties, such as family practice and internal medicine, should benefit—at least in the long term—from these changes. The value of surgical practices may be reduced due to lower reimbursement under RBRVS.
- Federal enforcement of fraud and abuse laws in practice sales also impacts value. In December 1992, the Internal Revenue Service set standards for practice sales, stating that it views payments by hospitals for certain clinic assets as remuneration for referrals, possibly violating the Medicare/Medicaid anti-kickback provisions.[11] The IRS said it will question "any amount paid in excess of the fair market of the hard assets."
- The creation of Integrated Service Networks may dramatically affect the value of some medical practices through its orientation to large networks, cost containment, and regulation. Because contracts with health maintenance organizations, physician hospital organizations, and other payers are a significant component in determining the value of a practice, the disruption in this contract environment potentially changes the value of a practice (up or down, depending on the practice's position in the market).
- Inurement issues can be factor, particularly when a nonprofit hospital purchases a practice. Possible inurement results when a tax-exempt organization (the hospital) pays for a for-profit entity (the practice) and this payment "inures to" (or benefits) the doctors. To the extent that payment is greater than fair-market value, it could be construed as inurement (i.e., enriching the for-profit entity).[12] As a result, the hospital could lose its tax-exempt status.

From the very brief overview of the tax and legal issues related to practice valuation, it is clear that these issues must be considered when valuing a practice. Thus, it is important to seek professional advice in these areas.

Suggestions for Increasing Practice Value

Medical practices can increase their value in a variety of ways, most of which they control themselves, according to author Robert Wade.[13] These include some obvious methods, such as increasing gross revenue, maximizing net income, choosing appropriate practice locations, and increasing the group's size. Intangible components also account for a substantial percentage of practice value, and groups would be wise to enhance their reputation and improve staff quality. Thorough patient records, as well as accurate and complete financial records, also enhance a practice's value. Finally, Wade suggests maintaining a reasonable patient mix while enhancingng the group's mix of specialties and services.

Expanding on this list, David Fleming suggests four additional items for increasing the value of a medical practice.[14] First, the practice should have a desire and plan to expand, and second, it should have experience with managed care contracts. Third, it should increase use of ancillaries, and, finally, it should emphasize quality outcomes and services.

In addition, practices benefit from a good five-year plan and financial projection indicating the physician shareholder earning expectations. If this plan shows significant growth in physician earnings, this can be used to negotiate higher goodwill values.

The bottom line is that the group's value will be reduced if it sells in a panic with little planning and thought. By developing a marketing plan for selling the practice, a group can increase its value and prepare for negotiations.

Negotiation Tips

Negotiations may appear to fall outside a discussion on practice valuation, but, as Fleming notes, "you get what you negotiate, not what you're worth."[14]

With that thought in mind, potential sellers should consider the following negotiation tips:

- Be prepared. Plan a marketing strategy before negotiation.
- Don't appear too anxious. If the purchaser feels you are anxious to sell, the price will be lower. This is particularly an issue when the purchaser is a large hospital and the seller is a small practice.
- Have the attitude that "they need us more than we need them." This is typically true in hospital/physician negotiations, particularly with well-managed medical groups.
- If the deal seems too good to be true, it probably is. If it sounds like you will be running half the hospital or controlling the board, be cautious.

Conclusion

Leaving private practice to work for someone else carries some serious consequences and changes. Do you really want to be an employee, or do you value the freedom and responsibility of private practice? Does a one-time payment offset the loss of freedom and responsibility? If you don't want to be an employee, don't negotiate a sale.[15]

Physicians should also consider alternatives to a total sale, such as selling some assets while maintaining control of the practice.[16] For example, a group could sell its building, obtaining its equity in cash, and lease from the purchaser. If the purchaser is a nonprofit entity, it may have access to lower interest rates, which in turn would help keep rental costs down.

There also are alternatives to hospital acquisition. Examples include merging with a group of equal size, being acquired by a larger group, and selling to a private firm.[17]

Selling a practice is one of the most crucial events in a doctor's life. Thus, determining the practice's appropriate value becomes not just a mundane exercise in developing some dollar value, but an event causing the doctors or group to evaluate their personal and business goals. The science of practice valuation has progressed to the point where a narrow range of dollar values can be put on the practice. However, the art of finding a price that is satisfactory to both sides requires serious negotiating, keen insight into the health care market, and a lot of trust on both sides. MM

David C. Cordes is vice president of StrategiCare Consulting Group in Minneapolis.

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Are We Safe at Work?

A. Stuart Hanson, M.D.

"Patients and social activists are showing increased willingness to use violent means to support their agendas."

My medical teachers and mentors feared infectious diseases. Many contracted tuberculosis during their careers, and some even died. We now have AIDS and hepatitis to fear, and resistant tuberculosis is increasingly a problem, especially in some urban environments. Although we may not be as threatened as our predecessors, unknown threats are out there everyday for most of us involved with patient care. Many of these threats were known when we were in training, and we accepted the risk as we entered the medical profession.

What we did not learn, and what is most difficult to accept, is the threat of direct interpersonal violence. Physicians are becoming targets in animal research centers and women's clinics offering abortion services. We are are also threatened by violence spilling over into our nation's urban emergency departments (see Face to Face, page 6). This month's cover story (page 10) addresses these issues.

In March, Dr. David Gunn, a 47-year-old obstetrician/gynecologist, was shot and killed as he entered a medical clinic in Pensacola, Florida, where he worked. An antiabortion activist has been charged with his murder. In 1991, a Michigan otolaryngologist was murdered by a patient in his office. Three emergency department physicians were recently shot in California, and statistics suggest violence toward all health care workers is dramatically increasing.

We are accustomed to fearing microbes, but we now are threatened by patients and social activists who are showing an increased willingness to use violent means to support their agendas or to satisfy their anguish and frustration. Some animal rights activists are harassing medical researchers who use animals in their work. Some go so far as to use threats; stalk researchers; vandalize researcher's homes and labs; and use arson, theft, and hate mail to terrorize targeted individuals who are doing legitimate medical research. The same tactics are being used against physicians who work in women's clinics where abortion services are provided. Physicians doing legal medical work should not feel the need to hire bodyguards, call on police protection, or, like some, to carry a gun for "self-protection." However, with the increase in violence, we need to be more and more sensitive to the unstable and vengeful people with whom we interact, and we need to take protective measures when appropriate.

How far does free speech go? The rights and privileges of free speech require responsibility. Stalking, harassing, intimidating, creating fear, and using violent acts against a person or property are not responsible behavior and cannot be tolerated. Inflammatory words and pictures, however distasteful, may constitute free speech and deserve protection, but terrorism does not.

The American Medical Association recently called for a "health care protection act"; a Justice Department investigation into individuals or organizations who target physicians, researchers, or other health care professionals; and the establishment of federally defined "safe zones" for health care facilities.

Fortunately, public policy seems to be supporting our case, and some states and municipalities have already enacted laws to protect individual access to health care services. In anticipation of this summer's arrival of Operation Rescue in the Twin Cities, the Minnesota Legislature enacted a law that stiffens penalties for obstructing access to medical facilities. Before coming to Minnesota, Operation Rescue (a group of antiabortion extremists) camped out in other cities across the nation, blocking access to clinics and threatening and harassing physicians. Getting into a medical facility for a legal service should not require navigating a gauntlet where a person is yelled at, spit upon, pinched, punched, shoved, bitten, or beaten.

Microbes continue to pose significant medical risks for caregivers, but we also must protect ourselves from the anger and aggressive hostility of patients and protesters, some of whom are falsely using the privilege of free speech to become more and more abusive and violent as they champion their cause. Our society cannot tolerate extremism, lawlessness, and terrorism under the guise of free speech. Fortunately, our legislative bodies are beginning to adopt legal measures necessary to protect the civil rights of researchers, patients, and practitioners. MM

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People and Places Making Medical News

People

Jacott Elected Vice Chair of AMA Board of Trustees

William E. Jacott, M.D., was elected vice chair of the American Medical Association Board of Trustees at the association's annual meeting in Chicago. Jacott, who is currently serving his second term on the board, was its secretary-treasurer for the past year. He is assistant vice president of Health Sciences at the University of Minnesota in Minneapolis and an associate professor of family practice at the university's Department of Family Practice.

Medica Vice President

Medica has named Bryan Bushick, M.D., vice president of Delivery System Integration. He will be responsible for integrating the HMO's delivery systems to improve predictability of health care outcomes and cost. Bushick was previously a consultant with the Minneapolis office of Towers Perrin, where he helped formulate the Business Health Care Action Group.

William Mitchell College of Law Board of Trustees

Cassius M. C. Ellis, M.D., has been elected to a three-year term on the William Mitchell College of Law board of trustees. Ellis, a surgeon in private practice in Minneapolis, is director of surgical education at North Memorial Medical Center in Robbinsdale, Minnesota, and a clinical professor of surgery at the University of Minnesota in Minneapolis.

Distinguished Resident Teaching Award

The Minnesota Medical Foundation chose David Dvorak, M.D., a third-year emergency medicine resident at Hennepin County Medical Center, for its 1993 Distinguished Resident Teaching Award. Dvorak was chosen by a vote from third- and fourth-year medical students at the University of Minnesota. Dvorak graduated from the Illinois College of Medicine.

HealthSystem Minnesota Board and Presidents

HealthSystem Minnesota, the newly formed parent company for Methodist Hospital, Park Nicollet Medical Center, Methodist Hospital Foundation, and HSM Associates, recently named members to its board of directors. David D. Koentopf of Everest Medical is chair of the board; Donald E. Benson of MEI Diversified, Inc., is vice chair; Stanley R. Nelson of Henry Ford Health Systems (retired), is also vice chair; Dee Kemnitz of Carlson Companies is secretary; and Carl R. Pohlad of Marquette Bancshares, Inc., is treasurer. The new board approved Robert L. Galloway as president and chief administrative officer; James Reinertsen, M.D., as president and chief quality officer; and Geoffrey L. Kaufmann as vice president of strategic planning and corporate development.

Places

University Medical School to Disclose Salaries

The University of Minnesota's Board of Regents approved in July a plan to overhaul the Medical School's private-practice system and voted to publicly disclose physicians' salaries by next July. The regents agreed to let doctors keep control of patients' fees but approved new limits on how money can be spent and how much the doctors can take home in salary.

"This university is on a course of reform from which we will not be deterred," said Jean Keffeler, chair of the Board of Regents. She said the board will work with the administration to "restore the reputation and fundamental excellence of the School of Medicine," tarnished by a recent series of investigations into mismanagement.

Under the new plan, physicians no longer will be allowed to use fees to pay for cars or country club dues. Their salaries will generally be limited to 80 percent of the national average for their specialty and rank. Physicians will have to pay overhead for the use of university facilities, and they will have to pay a 7 percent "dean's tax" to support various Medical School programs.

A representative of Deloitte & Touche, the consulting firm that developed the plan, said implementation will take about two years and cost the university about $5 million annually for additional management.

'U' Hospital, Fairview Riverside to Merge Obstetrical Programs

The University of Minnesota Hospital plans to move its obstetrical and newborn intensive care programs to Fairview Riverside Medical Center, the two hospitals recently announced. Under the arrangement, the University Hospital will run the newborn intensive care unit with university employees, and Fairview Riverside will manage and provide staff for the obstetrical program and the well-baby nursery.

The university has too few births at its hospital to properly run its physician teaching programs. Fairview Riverside has one of the region's busiest obstetrical programs, but it lacks a newborn intensive care unit. "This makes good sense for all," said Gregory Hart, general director of the University Hospital.

New Hospital Completed in Princeton

Fairview Northland Regional Hospital, the first hospital built in outstate Minnesota in 15 years, opened for care in late July. Located in Princeton on Highway 169, the new three-story, 41-bed hospital has complete trauma and emergency department facilities, comprehensive radiology services, and a hydrotherapy pool for advanced rehabilitation. The Rum River Medical Associates clinic will have 45 examination rooms and space for visiting medical specialists.

Construction of the 85,000 square-foot hospital and attached 20,000 square-foot clinic began in the spring of 1992 and was completed two months ahead of schedule.

KMSP-TV Launches 'BloodWatch'

KMSP-TV and Memorial Blood Center of Minneapolis have joined forces to air a special segment during "Minnesota 9 Tonight" to communicate the constant need for blood donations and to help maintain a sufficient blood supply for area hospitals. The 15-second announcements, called "BloodWatch," inform viewers what type blood is needed that day. Viewers are given a telephone number to call if interested in donating blood.

"Minnesota 9 Tonight" is broadcast weeknights on KMSP Channel 9.

MDH, Fairview Collaborate to Reduce Family Violence

The Minnesota Department of Health and Fairview Hospital and Healthcare Services are collaborating to reduce family violence through community assessment and prevention programs.

"Although family violence is growing at an alarming rate, it has been somewhat overlooked as a public health issue," said Marlene Marschall, commissioner of health. The family violence project will be the first of its kind at the Department of Health.

The pilot programs—currently being planned for Fairview service areas in Dakota County and the Princeton and Milaca area—will target people of all ages, with a special focus on children to combat the often cyclical nature of family violence. A $50,000 grant from the Fairview Foundation will fund the project's planning phase.

"The health of the communities we serve is jeopardized because of family violence, which takes its toll on all involved, especially children," said Richard Norling, president and chief executive officer of Fairview Hospital and Healthcare Services.

Fairview Riverside Providing Free Cancer Screening

The Farview Riverside's OB Clinic has received grant money from the Minnesota Department of Health to provide free breast and cervical cancer screening to low-income, uninsured or underinsured women. The program will provide physical breast exams, screening and diagnostic mammography, pap testing and pelvic exams, colposcopy and colposcopy-directed biopsy, patient education, and referrals to a primary care physician. Eligibility for the program is based on annual income and household size.

Socioeconomics

Blue Cross, Park Nicollet, and Methodist Join Forces

Blue Cross and Blue Shield of Minnesota announced plans to enter a partnership with Park Nicollet Medical Center and Methodist Hospital in what could become one of the state's first integrated service networks. Blue Cross will begin marketing the partnership as an exclusive provider organization, initially targeting self-insured employers in the west Twin Cities metro area, and will begin selling its services by September.

The groups are forming First Integrated Holding Co., of which Blue Cross will own 50 percent and Park Nicollet and Methodist each will own 25 percent. The agreement does not prevent the organizations from continuing existing partnerships or making similar arrangements with other organizations, said Charles Jacobson, Park Nicollet president and chief executive officer.

Coverage will begin in January 1994 and will be restricted to care given by designated physicians, primarily at Park Nicollet, and care given at Methodist, located in St. Louis Park, Minnesota.

MinnesotaCare Enrollment Outpaces Projections

Enrollment in MinnesotaCare is about 20 percent higher than projections, reducing the number of uninsured in the state but causing concern among officials that costs might eventually force the state to reduce benefits.

Enrollment, averaging about 2,000 a month, is higher primarily because of promotional efforts, not due to a greater-than-estimated number of uninsured Minnesotans, experts say. So far costs are running about $1 million less than expected. However, some officials are concerned that the cost of providing coverage to the large number of enrollees may eventually overwhelm the plan's income.

HealthSpan Pays $2.9 Million in Fraud Settlement

HealthSpan Transportation Services, a St. Paul subsidiary of Minnesota's largest hospital organization, paid the government

$2.9 million to settle allegations that it fraudulently overcharged Medicare and Medicaid in the manner it transported nursing home patients. State and federal officials claimed the company transported as many as 7,000 nursing home residents to doctor visits using costly and unnecessary ambulance rides instead of the more appropriate and inexpensive medical-van trips in the period from 1988 to 1991.

HealthSpan denied any intent to overcharge the government, but admitted it made unintentional coding errors in billing Medicare and Medicaid.

HealthSpan Transportation paid about $1.18 million in restitution to Medicare and Medicaid programs and $1.72 million in damages as part of its settlement with the Minnesota attorney general, the U.S. attorney, and the U.S. Health and Human Services Department. In addition, the company agreed to provide $97,452 in free medical-van transportation to low-income patients, to charge van rates when an ambulance is not necessary, to monitor billing practices closely, and to train employees in correct billing procedures.

Health Insurance Pool Gives Small Businesses Buying Power

Under provisions of MinnesotaCare legislation now in effect, small businesses in the state are able to obtain health insurance for employees with about the same rates and benefit levels as those available to large employment groups. The Minnesota Employees Insurance Program allows unrelated firms to pool employee premiums so they can achieve the same leverage as large employee groups.

However, critics of the plan say premiums may still be too expensive for most small businesses. Employers are required to pay at least half of the lowest-cost premium available to their employees. State officials estimate that a typical single-coverage premium for next year will be about $175 per month and that family coverage will cost about $450 per month.

Through the program, employees of participating businesses can choose from as many as four health plans—Group Health, Medica Premier, Fortis/Preferred One, and Blue Plus. Employers must contribute the same amount for each employee regardless of which plan employees select. Each plan has similar benefits, and each requires that patients choose a primary care clinic, through which they can gain access to specialized care.

United States Leads World in Health Care Costs

The United States leads the world in health care costs, spending more than twice as much per person as the average industrialized country, yet there is no evidence that Americans are any healthier, according to a new study.

Americans spent an average of almost $2,900 per person on health care in 1991, the highest amount among 24 industrialized nations included in a study published recently in *Health Affairs*. The study, which did not include Russia or any former Eastern Bloc countries, said the United States has the third highest infant mortality rate among the nations included in the study. Turkey and Greece had the highest rates.

According to the study, health care spending in the United States is 50 percent higher per person than in Canada, the second-most expensive country, and 67 percent higher than in Switzerland, the third most expensive country. Health care in the United States consumed 13.2 percent of the nation's gross domestic product. No other country in the study devoted more than 10 percent of its economy to health.

Rates, Trends, Data

Gap in Death Rates for Rich and Poor Widens

The gap in death rates for the educated rich and less-educated poor has widened substantially during the past three decades, despite improvements in overall death rates, researchers report in the July 8 *New England Journal of Medicine*.

The findings "raise serious questions about disparities in opportunity and equity in our nation," researchers said. "As death rates have declined, poor and less-educated people have not benefited equally."

From 1960 to 1986, the difference in death rates between well-educated and poorly educated people increased by more than 20 percent for women and by more than 100 percent for men. Similar disparities were seen between low-income and wealthier people.

The research team did not determine what causes the differences, said lead researcher Gregory Pappas of the National Center for Health Statistics in Hyattsville, Maryland. However, the study notes that increasing inequities in income, education, and housing, as well as a falling standard of living for a large segment of the U.S. population, have been reported, and access to health care is a problem for a growing number of people. The report also suggests that behaviors such as drug use, smoking, and heavy drinking may be more common among the poor and less educated.

The study compared death records from 62,400 people in 1960 with those of 13,491 people in 1986.

AIDS Leading Cause of Death Among Some Groups

AIDS and related complications were the leading cause of death for Minneapolis men aged 25 to 44 in 1991, state health officials announced in July. And according to a study published in the June 16

Journal of the American Medical Association, AIDS was the leading cause of death for men in this age group in five states and 64 cities in 1990, including Minneapolis. In some cities, more than half of young men's deaths were AIDS-related. In Minneapolis, 31 percent of men in this age group died of AIDS in 1991.

According to the *JAMA* study, AIDS and illnesses related to HIV were also the leading killer of young women in nine cities.

"Although (AIDS) deaths among young adults made up only 7 percent of U.S. deaths from all causes in 1990, they are disproportionately disruptive to society," wrote Richard Selik, M.D., and colleagues from the Centers for Disease Control and Prevention in Atlanta. "Such premature deaths result in the loss of many productive years of life and deprive young children of their parents," they wrote.

The researchers said that, barring a substantially expanded national prevention effort, "adolescent and young adult HIV transmission guarantees the continuation of the AIDS-HIV epidemic."

Using data from the National Center for Health Statistics, Selik and his colleagues analyzed the underlying causes of death for adults aged 25 to 44 and found 18,748 AIDS-related deaths nationwide in 1990. Researchers said they expect the number of deaths attributed to AIDS and HIV to continue to rise.

Integration in an ISN

The concept of ISNs is central to the new type of health care delivery system conceptualized and recommended by the Minnesota Health Care Commission. Health Care Commission member K. James Ehlen, M.D., chair and CEO of Medica and chair of the Commission's Services Delivery Subcommittee, shares his thoughts on how ISNs will dramatically change the current health care system.

"ISNs represent a new way of doing business that will bring greater integration to the delivery of health care in Minnesota."—K. James Ehlen, M.D.

Many physicians have asked me, "Are ISNs something new, or is it just a new acronym for an old system?"

The concept of ISNs is different. And it's a concept that I truly believe will bring positive changes to the health care system because of its operative word: Integration.

Literally, integration means to combine parts into a whole. And that's exactly what ISNs will do. ISNs will represent a strategic alliance between all of the players in the heath care system—physicians, health plans, hospitals and other providers.

Medica currently invites its physicians to help the plan set policy and guidelines through participation on the board or Medical Policy Council. But ISNs will bring this concept further, requiring us all to form a true partnership, with one common vision, and common strategic objectives.

ISNs will encourage greater inter- and intra-professional collaborations as everyone works toward the goal of delivering quality, cost-effective care. These collaborations also will be critical in the development of uniform practice parameters, billing and claims systems, utilization review requirements, and criteria for the use of new technology and diagnostic equipment.

Competition between ISNs will be promoted and facilitated through the availability of comparable data on price, costs, utilization and quality. ISNs will be required to provide the full array of health care services for a fixed price to the consumer. So the greater the degree of integration of clinical, financial, information and governance systems, the greater the potential for quality improvement and cost reduction.

This year, we are working to design procedures for determining ISN status, and rules that will govern ISNs and the all-payer system for non-ISN services. This will allow health plans and providers an opportunity to make appropriate decisions about whether to join or form an ISN before the state implements an all-payer system.

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Innovations

Mayo Clinic Experimenting With Treatment Via Satellite

Mayo Clinic in Rochester plans to experiment with technology that would enable physicians to treat rural patients miles away by using a satellite launched with the space shuttle Discovery. Treatment via satellite could increase rural patients' access to medical care, researchers say, as well as reduce duplication of services and cut costs.

"We have to see how patients perceive being treated by satellite and not face to face," said Bijoy Khandheria, M.D., a Mayo cardiologist and principal study investigator.

Data and images will be transmitted via NASA's Advanced Communications Technology Satellite, or ACTS, which will be in space for three years. Although

Mayo's project is one of dozens involving ACTS, Mayo was the only medical center chosen to participate because it already has extensive satellite capabilities and has alliances with many rural clinics, Khandheria said.

Mayo's experiments will begin in December. In one of the projects, Mayo physicians will create a speech pathology consultation service between Mayo Rochester and its clinic in Scottsdale, Arizona, using satellites already based at each site. Another experiment will use ACTS to monitor patients receiving dialysis at Mayo's center in Wabasha, Minnesota. More sophisticated transmissions will begin in August 1994, when x-rays, CT scans, and MRIs will be transmitted between Mayo Rochester and Mayo Scottsdale.

Medical Research

Intensive Treatment Can Slow Effects of Diabetes

Intensive day-to-day treatment of diabetes can significantly slow the debilitating long-term effects of the disease, according to a 10-year study that involved the University of Minnesota, the Mayo Clinic, and the International Diabetes Center in St. Louis Park, Minnesota.

Researchers said intensive treatment—including three or four insulin shots a day, four daily blood tests, and a weekly 3 a.m. blood test—appeared to be far superior to current treatments. The intensive treatment reduced by 76 percent diabetic eye disease—the leading cause of blindness in adults. It also prevented or delayed the progression of kidney disease by 35 percent to 56 percent and prevented nerve disease by 60 percent compared with standard treatment.

Although the 1,441 participants in the study suffered from Type 1 diabetes, which affects only about 5 percent to 10 percent of the estimated 14 million Americans who have diabetes, the study likely will change treatment methods for all diabetics, said John Bantle, M.D., an associate professor at the University of Minnesota, who headed the research project at the university.

"This is a study of staggeringly important proportions," said F. John Service, M.D., president of the Minnesota affiliate of the

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American Diabetes Association and the study's principal investigator at the Mayo Clinic. "The results are clear-cut and will have a profound impact on the treatment of diabetes," he said.

The study, which included 29 centers in the United States and Canada, was financed by the National Institutes of Health.

Defective Gene Causes SCA1

University of Minnesota scientists have discovered the cause of spinocerebellar ataxia type 1 (SCA1), an inherited neurological disease that kills everyone it strikes.

In the July issue of *Nature Genetics*, researchers said they have discovered that a defective gene on chromosome 6 is responsible for the disease, formerly known as Schut's disease. The finding raises the possibility that a similar defect is the cause of many diseases in which the brain and nervous system deteriorate, said Harry Orr, M.D., co-director of the research project and professor of laboratory medicine and pathology at the university's Institute of Human Genetics.

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Researchers say a blood test costing several hundred dollars can predict who will get the disease, about how old they will be when symptoms appear, and approximately how long they will live. Predicting who will get the disease is significant because SCA1 is a dominant genetic disease, so children of affected people have a 50-50 chance of inheriting the defect. In many cases, symptoms don't appear until those who have the disease are in their late 20s and 30s, often after they already have had children.

Orr said scientists now can study how the defect destroys the cerebellum and can attempt to develop effective therapies and a cure. He said the continuing research should yield benefits for people from families with similar genetic mutations, such as Huntington disease and Fragile X syndrome, the most common genetic form of mental retardation.

Organ Procurement Charges Raise Questions

The system of billing for reimbursement of organ transplant and procurement should become "more fiscally responsible" to avoid potential abuse, said Mayo clinic researchers in a study published in the June 23 *Journal of the American Medical Association.*

"It is critical that we get a better handle on the actual costs associated with organ procurement and in the process, decide on what constitutes a reasonable charge and an acceptable level of reimbursement," said Roger Evans, Ph.D., from Mayo's Department of Health Sciences Research.

The study, which evaluated financial data provided by transplant centers, found that the median charge (in 1988 dollars) for a kidney was $12,290; a heart, $12,578; liver, $16,281; heart-lung, $12,028; and pancreas, $15,400.

The study also said that donor organ acquisition charges billed to the patient may differ from what the hospital was billed by the organ procurement organization (OPO).

"Some transplant hospitals routinely mark up by as much as 200 percent the charges they are billed by OPOs," researchers said. "It is clear that the 'gift of life' can be financially lucrative to hospitals and OPOs."

Researchers Discover Genetic Communications Code

Researchers at Abbott Northwestern Hospital in Minneapolis have discovered how steroid hormone-activated proteins recognize specific locations on DNA—a discovery that could lead to new methods for controlling genetic diseases and cancer.

"This protein and DNA recognition is necessary for turning a gene on and off like a switch," said molecular biologist Lester Harris, Ph.D.

Using computer-based modeling and genetic sequence search techniques, researchers from the hospital's Cancer Research Laboratory found a high degree of similarity between DNA binding protein sequences and the specific locations on DNA to which proteins bind and regulate gene expression. The finding could lead to the design of genetically engineered proteins that can turn specific genes on or off. In addition, the discovery helps explain the origin of the genetic code that is involved in the basic building blocks of all forms of life.

AIDS Update

Steady but Slow Progress Toward AIDS Vaccine

Scientists say they have made significant but "incremental" progress toward a vaccine to protect people against AIDS, but say that a cure-all drug may be years away.

An experimental vaccine given to 20 human volunteers caused the majority to produce neutralizing antibodies, said researchers at the Johns Hopkins School of Hygiene and Public Health in an article published in *Lancet*.

The researchers noted the development of antibodies after blood samples from vaccinated people were mixed in test tubes with samples of the AIDS virus. Researchers cautioned that the vaccine is based on a viral strain that has been maintained for research purposes in laboratories worldwide. Eight of 10 people who took the highest dose of the vaccine produced antibodies that neutralized this lab strain. Six people in the group also produced antibodies against a different strain that is much more common among patients.

The vaccine, produced by Genentech, is the same vaccine tried successfully three years ago on chimpanzees. MM

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For copies of the standards please contact Keri Sperry, American College of Radiology, 1891 Preston White Drive, Reston, VA 22091.

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CLINTON

(continued from page 7)

ments there."

Clinton believes the incident may make emergency medicine seem more dangerous than it really is. "There is a perception of increased risk," he says, reiterating that HCMC has never experienced a violent episode involving a weapon. "Of course, it only takes one individual, you know."

It's precisely that one individual HCMC hopes to deter by initiating security measures.

Prudent Prescriptions for Safeguarding Medical Staff

As Clinton continues his tour, he punches in a security code and enters the ED. The department is buzzing with activity. HCMC sees about 250 patients on a typical day, with 40 to 60 waiting for care during peak hours after 3 p.m. Stopping down the hall from the triage desk, Clinton points to a space on the tiled floor. "Here's where the metal detector will be."

HCMC's management board began exploring better security measures for the emergency department in 1992 as part of an overall review of the medical center. As a result, the hospital has initiated a series of changes, which include the new security booth and pedestrian entrance, electronic locks, closed-circuit television cameras, a stricter visitor policy, photo identification for staff, and the proposed metal detector.

The same security measures have been used in other U.S. hospitals for years. Most urban EDs have police officers or armed guards, and Denver General Hospital recently installed a metal detector. Some hospitals have rejected the idea of metal detectors, citing the possible negative impression, but Clinton asks, "Do you appreciate going through a metal detector at the airport, or would you rather run the risk of a hijack?"

Clinton calls the added security a preventive measure. "We think what will happen with the metal detector is that if an individual sees it, they'll think twice about coming in if they're carrying a weapon.

Security's Side Effects: Regrets, but Relief

Clinton says the new security measures already have had a positive psychological impact on staff members. "I would say [the increased security] is viewed with relief by the nursing and physician personnel in the emergency department, particularly at times when the risk seems to be greater, such as on weekend nights." Likewise, nurses at the triage desk, located near the waiting room, feel more secure with a guard nearby—and for good reason. More than 20 percent of violent incidents in emergency departments occur in the waiting area, according to a 1991 study published in the *Annals of Emergency Medicine*.

Staff response to the proposed metal detector has been unmistakably positive, though tinged with regret. "There is a definite sentiment that it's unfortunate these steps are necessary, but we have a responsibility to provide a safe and secure environment."

Ignoring indications that society is becoming more violent could well have tragic results for both patients and caregivers, says Clinton. "If we don't [implement security measures], and if other hospitals don't, we may be forced to after a crisis situation. With the degree of emotionally charged incidents in the emergency department and the injuries we take care of, if we don't exercise our responsibility to protect patients, we'll eventually have an incident we could have prevented."

Ending his tour of the emergency department, Clinton heads for his office across the street. All this talk of beefed-up security at HCMC concerns him. Practicing emergency medicine is inherently challenging, he says—emergency physicians constantly deal with unanticipated demands, critical decision making, and emotionally strained situations. Handling crises is his job; it comes with the turf. He enjoys these challenges, he says, as well as the rewards of treating patients who have immediate, life-threatening problems and patients who have nowhere else to go.

So, as Clinton enters his office, he cautions not to sensationalize HCMC's security measures as indicating a fight against some imaginary wave of violence at the department, because this just isn't the case. He stresses that there's nothing alarmist about the hospital's actions and emphasizes that the metal detector hasn't been officially approved yet. He stresses that *armed* guards are necessary if the hospital plans to disarm people, but adds that not all hospital security will carry weapons.

Despite Clinton's concerns, it seems unlikely that HCMC's security measures will garner heavy media exposure or publicity, good or bad. Preventing violence is rarely considered news. These days, even violence sometimes isn't newsworthy. MM

Christian Fünfhausen is editorial assistant for Minnesota Medicine *and a recent graduate of the University of Florida in Gainesville.*

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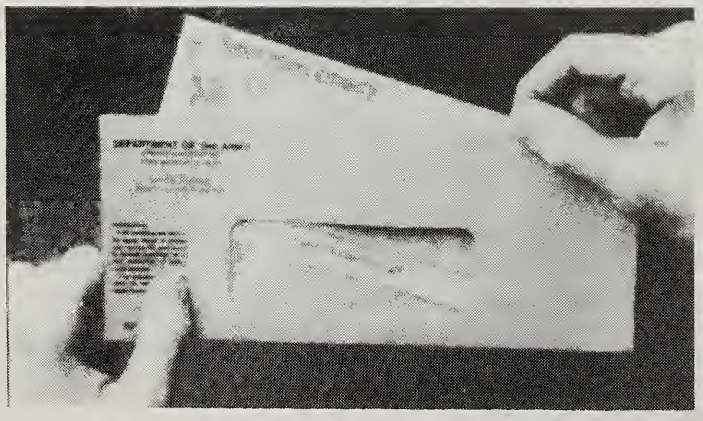

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The Numbers Game

Quantifying Quality of Care

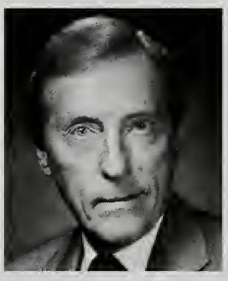
Edmund C. Burke, M.D.

Throughout the current national debate over health care reform, we physicians have heard much about numbers. Specifically, the Clinton administration has focused on how many Americans have little or no access to care and how health care costs have been rising drastically. However, some critics contend that little attention has been paid to quality of care—a vital concern in health care reform.

"Assured quality must be a principal goal of health reform, fully equal to the goals of universal access and affordable cost," writes Mark R. Chassin, M.D., M.P.P., M.P.H., in an editorial in the July 21 *Journal of the American Medical Association.* Chassin criticizes the health care industry and policymakers for their lack of consideration about protection of public health in their "headlong rush to control costs."

As health care decisions increasingly are dictated by the bottom line, where does quality fit into the equation? Chassin asserts that "assured quality holds the key to our ability to control costs safely, without jeopardizing health." He points out that eliminating overuse and reducing unwarranted variations in processes of care that contribute to poor outcomes can lower costs and improve quality at the same time. Among the methods available to improve quality are practice guidelines, clinically sophisticated measures of quality, and patient-centered measures that assess dimensions of outcome.

Minnesota may be somewhat ahead of the game in improving quality of care. Public and private data collection efforts in Minnesota already are considering or utilizing practice guidelines and other methods to improve quality (see this month's feature story, page 14).



> "Current efforts to improve the quality of health care overlook many important elements of care."

Nonetheless, current efforts to improve the quality of health care overlook many important elements of care. Policymakers have considered gathering such information as outcomes for certain conditions, the length of time patients must wait for an appointment, the percentage of babies delivered by cesarean section, and the number of people who leave certain health plans. But these are not the only definitions of quality. The physician-patient relationship is unique and is not simply a relationship between a salesperson and a consumer. Some aspects of quality, such as compassion, cannot be quantified. Quality care includes a physician's expression of concern, time spent determining the patient's true problem, sympathy, empathy, and the physician's effort and ability to instill confidence in the patient that he or she is receiving the best possible care. As we strive to reform the health care system, we must not forget that these are equally important elements in quality health care.

Inside This Issue

Data collection, analysis, and dissemination under MinnesotaCare will have sweeping ramifications for all physicians. This month's journal includes two articles that examine data collection and outcomes measurement in the state. Our feature story, "The Information Solution," (page 14) highlights public and private efforts and examines physicians' concerns about the collection of data. This month's Medicine Law & Policy article, "Data Initiatives Under MinnesotaCare," (page 35), further explores the state's far-reaching plans and describes how several newly formed entities will soon begin collecting data.

September is an important month for the Minnesota Medical Association, with the Annual Meeting taking place September 29, 30, and October 1 in Duluth. Among the MMA members assuming new posts for 1993-94 is the current president-elect, C. Randall Nelms, M.D., who is profiled in our Face to Face article (page 10). This month's issue also includes a special section on the Annual Meeting, including a schedule of events (page 24) and a report on the resolutions that will be considered for adoption (page 25).

September also is Women in Medicine Month, as designated by the American Medical Association. A second special report in this issue highlights the results from a recent survey conducted by the MMA Committee on Women Physicians (page 21). The survey reveals that women physicians in Minnesota continue to confront gender bias in the workplace, a problem that can adversely affect their medical careers. MM

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June Feature Piqued People's Interest in Public Health

I looked forward to your feature story on public health physicians in the June *Minnesota Medicine* with some fear and trepidation, but my fears were unfounded. The article was wonderful. You did an excellent job.

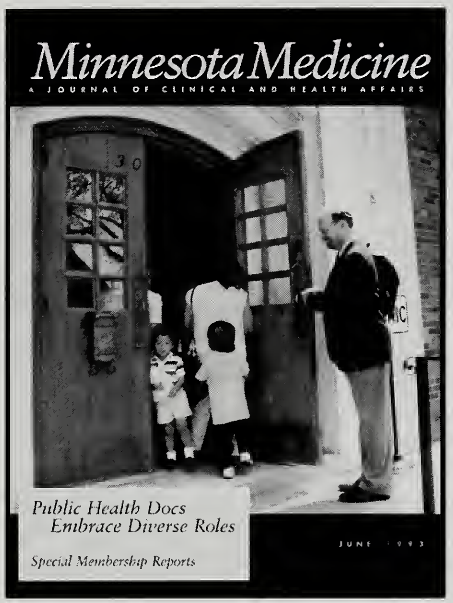
The real benefit of the article so far is that it has piqued people's interest in public health. Several people have called me to ask for more information on public health, and several students have asked me about public health as a career. Your article may have had broader ramifications than you anticipated.

Edward P. Ehlinger, M.D., M.S.P.H.
Director, Personal Health Services
Minneapolis Department of Health
and Family Support
Minneapolis, Minnesota

Goodbye to the Old-Fashioned Family Doctor

Ten years ago, I graduated from a family practice residency program in Iowa. My preferred choices were to start my own clinic (hang out a shingle) or to join a small group of family physicians. In Minnesota and across the country, these choices are disappearing for graduating family physicians. Big is in. Large groups are growing, and with that growth comes loss of autonomy for physicians. Maintaining independence seems much less likely for my peers and recent graduates.

I'm concerned about the ever-increasing control that large systems, such as large multispecialty clinics, HMOs, physician-hospital organizations, insurance companies, and the government, have in our health care system. Proposed changes to increase access, improve quality, and control cost will look to these large systems to produce results. Who controls these large systems? I fear that the people who control them are, in part, responsible for the rapidly increasing costs of health care.


Minnesota Medicine
A JOURNAL OF CLINICAL AND HEALTH AFFAIRS
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JUNE 1993

Goodbye to the old-fashioned solo family doctor and small groups of family doctors on the corner and in the small towns. Personally, I hate to see you become extinct. I believe we should look carefully at the groups that are buying these clinics. At a minimum, I hope the best parts of family medicine, such as continuity of care, comprehensive care, and the concept of having one physician for the entire family, will not get lost. If primary care providers lose their identity and become members of small, powerless departments in these large systems, I do not believe the result will be increased access, improved quality, and cost control. Our voices need to be heard in these organizations and in the halls of government.

Dennis R. Weslander, M.D.
Assistant Director
Duluth Family Practice
Residency Program
Duluth, Minnesota

The 'Unacceptable Circumstances' Confronting Physicians

I would like to address the unacceptable circumstances we physicians are increasingly confronting. I am astonished to see not only how passively we let our "equal" rights slip away, but also how we finance the organizations that encourage and demand investigations against us. We live in an environment that considers the medical community the cause of social ills rather than healers of the sick.

A few years ago, the Board of Medical Practice made a presentation to the medical staff at the University of Minnesota and stated that all doctors have the responsibility to report if they believe a colleague is incompetent, has abused drugs or alcohol, has sexually abused a patient, or has AIDS. Regardless of whether the accused person is found "guilty," the reporter cannot be held accountable. I could not believe that among that audience, proudly representing academic freedom of thought and speech, the only person who spoke against this recommendation was a foreign professor.

When a deaf woman, whose child I examined in the presence of an interpreter, can accuse me a few days later of sexual harassment because "my knee touched hers" and "my stethoscope touched her breast" while she was holding her infant in her lap, then we had better take the case for our rights to the public and to the courts. What would happen if there was not an interpreter present when a doctor was accused in a similar situation?

This is a country where a man accused of murder goes free because the body of the girl was not found, and the fact that his locker contained the missing girl's bloody clothes was considered insufficient evidence for conviction. In our country, you are innocent until proven guilty. How, then, can we tolerate the notion that a doctor's word is worth less than someone else's, and the doctor is guilty until he can prove his innocence?

I am in favor of change; we physicians must be leading advocates for improvement of health and other issues for our patients and for society as a whole. However, doctors must not be singled out for problems or bear more than their share of the blame for problems in the health care industry.

We have a responsibility to maintain the dignity of the medical profession. We dedicate our lives to our work. We do it with compassion, and our patients are grateful and appreciative. We cannot let ourselves be treated as second-class citizens! We have to be responsible, but we should not be scapegoats in the hands of politicians or sensationalist news media.

I have heard it said that when one part of society turns against another, from then on no one is safe. I am appalled by the passivity of medical organizations that suggest we physicians should not stand up for our rights because that would appear to be "self-promoting." I do not intend to self-promote, but I refuse to be part of a "preventive surrender." The Constitution provides that the rights of one person are equal to those of another; we have to assume this is true, even if one person happens to be a doctor.

All my life I have risked my existence. I left my home because I could not accept inequality. I cherish my freedom. We must protect freedoms for all physicians now, as well as for doctors of the future. Rather than suspicion and fear, compassion and understanding should form the partnership between physicians and society and between physicians and their patients.

Robert O. Fisch, M.D.
Professor of Pediatrics
Division of General Pediatrics
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Richard K. Vehe, M.D.,
pediatric rheumatologist

Dr. Vehe graduated from Washington University School of Medicine in St. Louis and completed his residency in pediatrics at the University of Minnesota. He completed his clinical fellowship in pediatric rheumatology at Children's Hospital and Medical Center in Seattle. Dr. Vehe will serve as medical director of Gillette Children's expanded pediatric rheumatology service.

Stephen P. England, M.D., M.P.H.,
pediatric orthopaedic surgeon

Dr. England graduated from Cornell University Medical College in New York and completed his residency in orthopaedic surgery at The Hospital for Special Surgery in New York. He completed his fellowship in pediatric orthopaedic surgery at Atlanta Scottish Rite Children's Medical Center. In addition to his general pediatric orthopaedic surgery duties, Dr. England will see patients in the cerebral palsy, spina bifida and rheumatology clinics.

Mark E. Gormley, M.D.,
pediatric physiatrist

Dr. Gormley graduated from the University of Louisville School of Medicine and completed his residency in physical medicine and rehabilitation at Tufts Affiliated Hospitals in Boston. He completed his fellowship in pediatric rehabilitation at the University of Michigan Medical Center in Ann Arbor. In addition to his general physical medicine and rehabilitation duties, Dr. Gormley will see patients in the cerebral palsy, spina bifida, rheumatology and prosthetic clinics.

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Financial Donations Needed in Iowa

The state of Iowa has suffered a devastating natural disaster in the form of record flooding. The flood waters have begun to recede, and the cleanup has begun in earnest. Although it is too early to fully assess the damage the flood has caused, the cost will certainly be very high. One-third of Iowa's corn and bean crops are gone, and hundreds of people have lost everything. Business losses in Des Moines alone could exceed $700 million. Damage to bridges, roads, sewer systems, and other infrastructure in many Iowa cities and towns has yet to be assessed but is sure to be extensive.

Fortunately, Iowa hospitals and clinics were able to continue functioning on a normal basis. There has been no outbreak of disease, and the death toll has been fairly low considering the magnitude of this calamity.

The expressions of concern and offers of assistance that the Iowa Medical Society has received from medical societies across the country have been heartwarming. Generous Americans from every state have offered support and assistance, making this tragedy more bearable for Iowans.

Many physicians have asked what they might do to help. Financial donations are sorely needed to assist Iowans forced out of their homes. Following are the addresses of some organizations accepting donations:

Iowa Cares
666 Walnut
Des Moines, Iowa 50309

American Red Cross
2116 Grand Avenue
Des Moines, Iowa 50312
Attn: Brother Phillip

Salvation Army
1330 Sixth Avenue
Des Moines, Iowa 50304
Attn: Lt. Hellstrom

Again, thank you for your concern. Pray with us that the heavy rains have ended and that we will come through with no further harm to people or property.

John Anderson, M.D.
President, Iowa Medical Society
Des Moines, Iowa

Effective Partnerships Reap Positive Outcomes

For health care reform to be effective, it is becoming increasingly clear that physicians, health plans, hospitals and other providers will need to focus even more attention on establishing effective partnerships with one another.

An example of one such partnership was established by Medica and its participating physicians to address the mammography needs of Medica members.

In 1990, Medica found that 46 percent of its female members 50 years and older had received mammograms. Ideally, 100 percent would have received mammograms.

To encourage female members to take advantage of this free preventive service, Medica, in partnership with its participating physicians, developed educational materials about its mammography program. As a physician, your influence in recommending mammograms is evident in the results of an American Cancer Society survey, which showed that 94 percent of women whose physicians recommended mammograms had received one. In contrast, only 36 percent of women whose physicians did not make this recommendation had received mammograms.

Medica now mails informational brochures, shower cards showing how to conduct breast self-examinations (BSEs), and booklets to keep track of mammograms and examinations to all of its female members between the ages of 35 and 74. The results show that this program is working, as 49 percent of the members 50 years and older received their recommended mammograms in 1991 and 51 percent received theirs in 1992. While these increases may look modest, Medica believes that the program's value in terms of saving lives cannot be measured.

Through another collaborative program, Medica and Consulting Radiologists, Ltd., jointly offer work-site mammograms to Medica Choice members employed by Minneapolis Public Schools, Eco Water Systems and Federal Cartridge.

In addition to mammograms, this program offers employees workshops that feature a 10-minute video on BSE, and participants receive mammography record-keeping materials and written BSE instructions.

Through efforts such as its mammography program, Medica is working to establish partnerships with you to achieve a common vision and collaborative strategies that will positively affect the health of its members.

MEDICA

Advertisement

C. Randall Nelms, M.D.

The New MMA President Is All Ears

By Christian Fünfhausen

Doctor C. Randall Nelms spends much of his time just as he did while growing up in Tennessee during the 1940s—in an ear doctor's office. Only today Nelms is the ear doctor. Or, rather, an otolaryngologist. "One of the main reasons I became interested in medicine is that I had a lot of ear, nose, and throat problems myself," says Nelms. "I spent a long time in the physician's office as a kid in my hometown." Nelms now treats patients with these problems using a variety of surgical, clinical, and educational techniques—even otoscopes with teddy bears on top.

And as Nelms assumes the presidency of the Minnesota Medical Association this month, he hopes to employ the position as a proverbial otoscope to help examine, diagnose, and treat many ailments of the medical profession in the state, capping nearly 30 years of interest and service in various levels of organized medicine.

Tennessee to the Twin Cities

The offices of Otolaryngology & Head and Neck Surgery, P.A., where Nelms has practiced since 1972, are a long way from his hometown of Kingsport in northeastern Tennessee. Nelms was the older of two sons of Charles Randall Nelms Sr., an insurance salesman by trade. Upon graduating from high school, Nelms traveled to Davidson College in Davidson, North Carolina. During his third year there, he became reacquainted with a neighbor from Kingsport, Gretchen Goerdell, who was studying chemistry at Randolph-Macon Woman's College in Lynchburg, Virginia, some 200 miles north.

"We were fourth-grade sweethearts, but we broke up in eighth grade," Nelms says. "We got back together as juniors in college." They were married in 1961, when both graduated.

Fresh out of college, Nelms and his wife moved to Memphis, where Nelms attended the medical school at the University of Tennessee. Meanwhile, Gretchen began conducting research, including work with a controversial, new substance that was beginning to make headlines around the country—LSD.

With his medical degree in hand, Nelms moved to the Twin Cities with his wife to participate in a two-year surgery internship at the University of Minnesota. He followed this with residencies in general surgery at the Minneapolis Veterans Administration Hospital and in otolaryngology and maxillofacial surgery at the University of Minnesota Hospital. While living in the Twin Cities, the first of Randall and Gretchen's three daughters, Kara, was born.

In 1970, the draft beckoned. Nelms had received a deferment for his internship and residencies, but he and his family now moved to the Offutt Air Force Base in Omaha, Nebraska, where Nelms finished his otolaryngological surgery training and did some teaching, as well. That same year, the family's second daughter, Wendy, was born.

But Minnesota had become home for the Nelmses, so in 1972, 15 years after Nelms had entered college, he joined Otolaryngology & Head and Neck Surgery, P.A., in St. Paul. The Nelmses moved into a house in North Oaks, where they have lived ever since. Jennifer, their third daughter, was born that year.

Practicing Medicine

From the sixth floor of the Central Medical Building, the practice's break room affords a wide, expansive view of the many St. Paul neighborhoods the clinic serves. The people who live in the area and who run the small businesses that line University Avenue below

PHOTOGRAPH BY BRIAN PARMETER

"I like to talk to people and take care of people. That's a joy for me."

–C. Randall Nelms, M.D.

are one reason Nelms enjoys his work so much. "It's the relationship you have with people. This is not an assembly line type of business. I like to talk to people and take care of people. That's a joy for me. And as I'm in medicine longer and longer, it's even more fun because the kids I've taken care of now bring their kids in."

Sitting in the break room, Nelms sips from a can of Coke and appears relaxed, which seems to be quite a feat as he describes his often rigorous schedule of morning surgery and afternoon office visits. But variety is another reason he enjoys practicing medicine.

"I picked otolaryngology because of the diversity of things you can do—working with ears, microsurgery, noses, plastic surgery, head/neck, cancer work, ENT," Nelms says. "I didn't want to specialize in just one thing—strictly ear, plastic, or head/neck. Instead of doing one type of surgery day in and day out, I have a variety of procedures I can perform, which makes work exciting."

EarBears

Nelms also likes to tinker with ideas, especially ideas for new instruments, methods, or techniques that can improve the way physicians deliver care. In the early 1970s he hooked up with a friend and began researching how to craft a surgical instrument that would incorporate a suction device as part of its design.

However, Nelms and his partner never fully followed through with their experiments. Since then, other inventors have developed similar instruments that are now widely used in surgery. Nelms and his partner also worked on some ideas for improved otolaryngologic surgical techniques, but they didn't pan out either.

About five years ago, Nelms came up with a new idea. "I've always had a desire to teach parents about ear infections because I see so many of them," he says. "And when kids come to the office, they're always screaming because they don't like doctors poking in their ears."

To educate parents and to put children at ease during ear check-ups, Nelms and his partner developed the EarBear, an all-plastic, home-use version of the otoscope. A tiny bear perches atop the device, as if ready to peek into a child's ear. The otoscope can also be purchased with a stuffed teddy bear, which has several ear problems of its own. The bear has openings on either side of its head beneath its ears, and inside are four color photographs of eardrums—one is red and infected; another pink with fluid; a third has surgically implanted tubes; and the fourth shows a normal eardrum. By inserting the otoscope's lighting

NELMS continued on page 52

PERSPECTIVES

Informed Consent

By Kenneth B. Wasser, M.D.

ILLUSTRATION BY DAVID RICKERT

Bobby's eyes would sparkle when he talked about baseball. He knew all the top players' batting averages dating back to their rookie years. Like many 12-year-old boys, Bobby loved baseball. But unlike most, he never had a chance to play little-league ball. Bobby had muscular dystrophy. His delayed motor development, waddling toe walk, and large calf muscles made the diagnosis painfully obvious when he was still a toddler. Physical therapy, bracing, and heel-cord-release surgeries were futile in preventing Bobby from being confined to a wheelchair by the time he was 8 years old. Now, at 125 pounds, his pear-shaped body was nearly impossible for his mother, Susan, to handle. Caring for him was a full-time job, and she had little help at home.

Bobby's father, unable to cope emotionally with the illness, had left them when the child was only 6. Although Susan was attractive with short, brown hair and an engaging smile, she was never able to find a companion willing to share her devotion to Bobby. She proudly displayed her community college degree on the wall of her apartment, yet she knew that working outside the home and entrusting Bobby's total care to someone else was financially and emotionally impossible.

"Although she knew the hopelessness of the situation, Susan could not bring herself to put an end to what she considered the high-tech medical torture of her child."

Bobby had been in the intensive care unit before, but this time was different. Susan could barely stand looking at the endless stream of lines and catheters going in and out of her beloved son. She realized Bobby's muscular dystrophy had severely damaged his heart muscle causing, as one of his doctors explained, "a severe cardiomyopathy unresponsive to conventional antiarrhythmics."

With increasing frequency, the cardiac monitors would sound their alarms, the intensive care team would perform CPR, and Bobby would be defibrillated into normal sinus rhythm. This scene was repeated as if it were part of a Broadway show rehearsal. Susan also knew Bobby's respiratory muscles were losing what little power they had left. Her practiced eye could see by the movement of the respirator that Bobby was breathing less and less on his own. Although she knew the hopelessness of the situation, she could not bring herself to put an end to what she considered the high-tech medical torture of her child. In the beginning, whenever the alarms went off, the doctors would ask Susan to leave the room. After a while, the ICU team let her stay with Bobby. From time to time, a member of the medical team would ask Susan to consent to a "do-not-resuscitate" order. She never could. "How can I sign my child's death warrant?" she would ask. "Please don't ask me to do this."

Fortunately, Dr. Harold Jones was also involved in Bobby's care. Dr. Jones was tall, had a crop of white hair on each side of his bald crown, and walked with military bearing. He inspired immediate confidence. Despite his formidable appearance, he had the uncanny ability to establish rapport instantly with patients. He had seen Bobby from time to time in the muscular dystrophy clinic, and they had gotten along fabulously because both of them loved the Boston Red Sox and could not stand the New York Yankees. Whenever Dr. Jones would talk to a patient, he would always be at eye level, never looking down at the patient. He did not allow objects such as a desk to come between him and the patient. He would either sit down on the bed or pull up a chair alongside. He usually held the patient's hand and gently touched the place where the patient felt the slightest discomfort. He didn't spend an excessive amount of time with people, but they always seemed to feel he was there longer than he actually was. Perhaps his empathy stemmed from his first-hand knowledge of loving a handicapped child. His own son was severely mentally retarded.

Dr. Jones sat with Susan, held her hand, and listened to her story. He agonized with her about her inability to consent to a "do-not-resuscitate" order. He felt the need to come between the bureaucratic, legal aspects of Bobby's care and Susan's personal struggle. Then it happened again. Bobby's head rolled sideways and the alarms sounded their continuous BEEEEP. Dr. Jones looked into Susan's pleading eyes and appeared to see into her heart. He stood up, blocked the doorway, and prevented the intensive care team from entering. For a moment it seemed as if there would be a confrontation. But Dr. Jones was obviously immovable. He clearly had Susan's "informed consent," even though no papers had been signed or court orders issued. His authority to act on Susan's behalf went unchallenged. Susan held Bobby and sang him his favorite baseball song. She and Dr. Jones exchanged glances for the last time and then she whispered, "Thank you." **MM**

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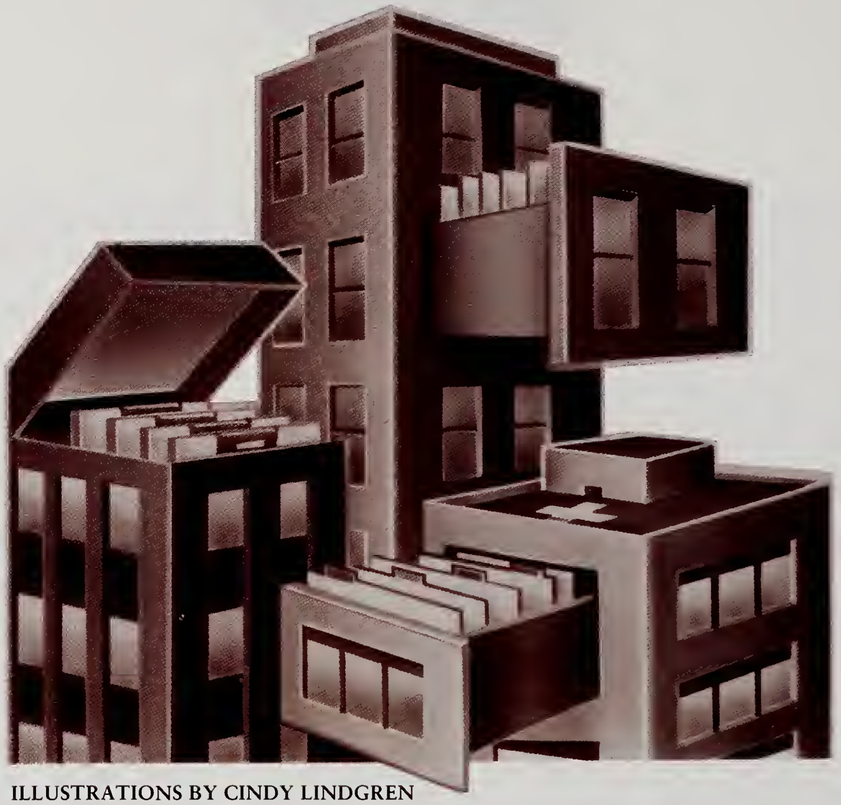
COVER STORY



ILLUSTRATIONS BY CINDY LINDGREN

The Information • Solution

Public, Private Efforts Seek to Improve Care, Reduce Costs Through Data Collection

The 1992 MinnesotaCare legislation brought sweeping changes to the way Minnesota's health care providers will conduct business. Nowhere is this more evident than with the data collection and outcomes measurement initiatives ushered in by the new law.

Todd Nissen

In concert with the newly formed Data Institute, the state Department of Health will gather information from hospital discharges, patient surveys, and medical records. Another big source of information will be paid claims, a strategy that causes discomfort among some providers who fear that such information is too narrow in scope to be useful.

The state's effort has captured the attention of the medical community, and for good reason. Several nonprofit and private groups already have their own data collection efforts underway, although state officials hope to work with and not impede these efforts. Moreover, physicians have fears about how sensitive information will be used. If used to measure their performance, how will variables such as case mix be entered into the equation?

The state's data initiative is designed to create an immense data base with two main goals. Policymakers want health plans and providers to use the information in an effort to bring down costs. They also intend to make the entire health care delivery system accountable to the public by exposing and comparing treatments and outcomes. In other words, patients and other buyers of care will be given access to provider outcomes and encouraged to shop around for the best treatment at the lowest price.

The majority of those who will most immediately feel the effects of the legislation—providers and payers—applaud its intent. Data collection has proven effective in measuring outcomes and ultimately improving the delivery of medicine. In addition, industry officials realize that data collection is firmly entrenched as a component of health care reform.

"In a sense, I'm a consumer of [health care] services, too," says Doug Hiza, M.D., one of six primary care physicians at the Skyline Family Medical Center in Duluth. "The state is saying, 'Carry data collection one step further and make it public information.' I don't think that's all bad."

> "When you talk about data and data initiatives, questions arise about who is collecting data, who is analyzing it, and for what purpose the project is being done."
>
> –Kent Wilson, M.D.

Issues Surrounding Data Collection

Providers and payers may support the intent of data collection, but many have serious concerns about the methodology and effectiveness of the state's efforts. They are concerned about such issues as ensuring that the data collected are accurate and used appropriately and about maintaining patient confidentiality.

Moreover, some question whether the state or public at large have any idea of the magnitude of the state's project. State and industry officials will try to agree on everything from computerized data collection methods to the definition of a "premature" baby.

"Even 'alive' and 'dead' need to be defined," says James Reinertsen, M.D., chair of the Institute for Clinical Systems Integration (ICSI), a private partnership between Park Nicollet Medical Center, the Mayo Clinic, and HealthPartners, established in 1992 to implement quality improvement and appropriateness guidelines and to measure treatment outcomes.

Thus far, the state has not discussed cost issues in detail. Richard Sturgeon, M.D., a member of the state's Practice Parameters Advisory Committee and director of the physician-hospital organization at Abbott Northwestern Hospital, points out that any data collection effort—whether government-sponsored or private—is extremely costly. The founders of ICSI, for example, have already invested millions of dollars to get that project off the ground, and the financial demands will only grow. "Ten million is not a lot of money when you look at these kinds of deals," says Sturgeon.

Another major issue remains unresolved, as well. Claims and treatment data gathered by individual payers are currently proprietary information. As the health care stakes rise, so will the commercial and marketing import of that information. Will the hospitals, doctors, and health maintenance organizations that now compete against one another sheath their swords long enough to agree on standardized measuring systems that will be used to compare them?

"I think the truth will be told the first time 10,000 to 20,000 people in a contract group move from one plan to another because of the comparative statistics," comments Kent Wilson, M.D., a physician with Otolaryngology and Head and Neck Surgery, P.A., in St. Paul. Wilson also served on the MMA ad hoc Committee on Quality

Assessment and Data Utilization, which developed the MMA's policy on data collection, analysis, and dissemination.

The State's Data Collection Efforts*

What exactly is the state embarking on? The Data Institute, a public-private cooperative mandated by the Minnesota Legislature to provide direction and coordination for data collection efforts in Minnesota, will begin operation sometime next year. The Legislature has asked various state and private organizations to appoint a total of 20 members to the institute's board of directors, which will include two physicians appointed by the Minnesota Medical Association. The other 18 members will represent Minnesota hospitals, health carriers, consumers, group purchasers, nurses, teaching and research institutions, and state agencies (see "Data Initiatives Under MinnesotaCare," page 35).

"Essentially, the Data Institute is in charge of making decisions on how and what information should be collected, with the commissioner of health retaining the authority to step in and help make the decision in the event that sufficient information won't be collected to satisfy our statutory mandates—although we're not expecting that to happen," says Andrea Walsh, assistant commissioner of health at the Minnesota Department of Health.

> "The goal isn't for the state to prevent the collection of information. It's a strength of the system to have individual plans developing their own information systems."
>
> –ANDREA WALSH

According to the Department of Health's draft Data Collection Plan,* which was prepared by the Data Collection Advisory Committee together with the state and several other committees, all payers will be required in 1994 to submit to the institute all hospital-based claims paid from July to December 1993. On a monthly basis after that, they will be required to submit paid hospital claims to the institute, which will process them with the help of a contracted vendor.

Currently, the state intends to ask providers to begin submitting "encounter-level" data on two or three selected hospital-based conditions for the same July to December period. Encounter-level data are defined as data related to the provision of health care services to individual patients, enrollees, or insureds, including claims data, abstracts of medical records, and data from patient interviews and surveys. The conditions that will be studied have not been finalized, but they most likely will be lower back pain, unstable angina, and prenatal care.

These conditions will be hospital-based for the first year, a move designed to limit the encounter-level data that physicians will have to report directly. As integrated service networks† develop, they are expected to take over the responsibility for collecting and submitting the information gleaned from patient surveys and medical records.

Walsh says that designing methodology and guidelines for measuring data about the conditions will take several months. The state hopes that its efforts on low back pain and angina will complement work at the federal Agency for Health Care Policy and Research, which is studying outcomes and is developing practice parameters for the same conditions. In later years, the state intends to expand its efforts and collect data on other conditions such as depression, breast cancer, childhood immunizations, and gall bladder disease.

In addition to collecting claims and encounter-level data, the Health Department will oversee a third data collection effort also starting next February. It will pull together aggregate financial and selected quality data from plans, providers, and hospitals. Approximately 700 physician clinics will be asked to submit patient and clinic demographic information, revenue data, and expenditure data for the last six months of 1993. All providers will be required to collect such information beginning January 1, 1994, for submission to the Department of Health by February 15 the following year.

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* Information and dates for the state's data collection efforts are based on the Minnesota Department of Health's draft Data Collection Plan and are subject to change. The Legislature has directed the Data Collection Advisory Committee and the Data Institute to comment on the plan by October 31, when the plan is scheduled to be finalized. After October 31, the plan will be continually reviewed and updated as necessary. (Minnesota Department of Health. Minnesota Integrated Data Initiative to Support Health Care Reform: Data Collection Plan [draft]. Minneapolis: Minnesota Department of Health, 29 June 1993.)

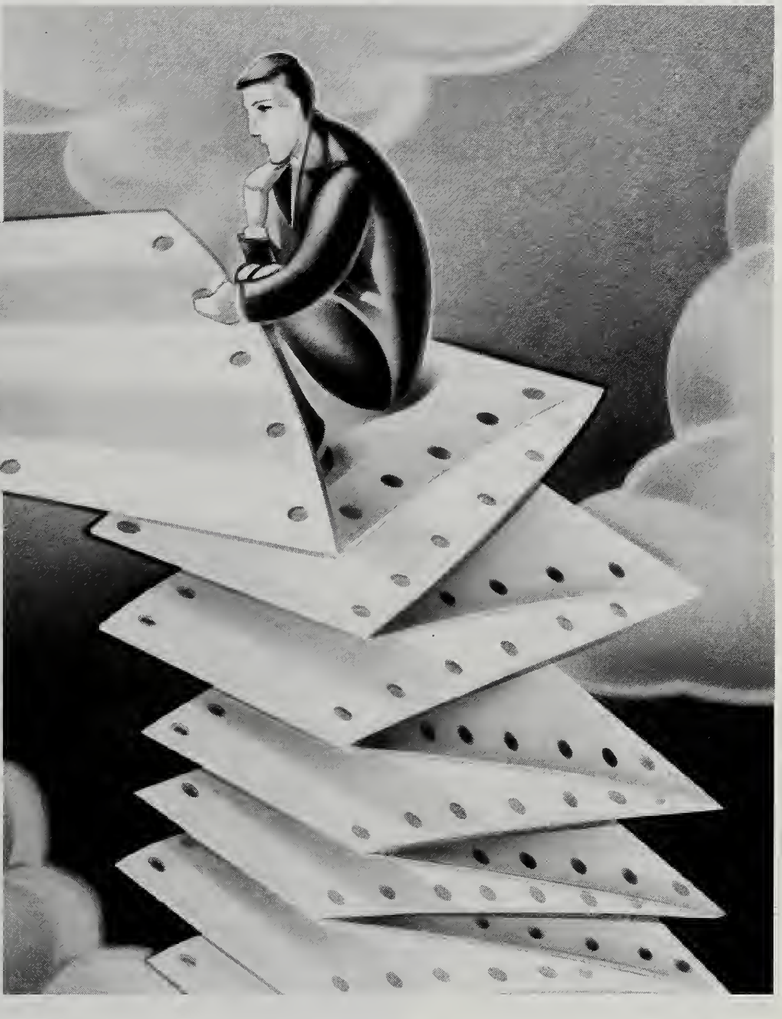
† Under MinnesotaCare, the state is encouraging providers to set up integrated service networks (ISNs) throughout the state to compete with one another. Although the state has not yet identified the specific structural and operational requirements for establishing these networks, it has determined that ISNs may be set up as nonprofit corporations or cooperatives and has specified that ISNs will be subject to regulations comparable to those for health maintenance organizations. The Legislature has asked the commissioner of health and the Minnesota Health Care Commission to develop a detailed plan by January 15, 1994, for the implementation of ISNs.

At the end of 1994, several reports will be published as mandated by MinnesotaCare. One report will compare health plans on the basis of premiums, benefits, and selected quality measures. Another will detail total expenditures and trends. The third will compare quality and outcomes for health plans, hospitals, and regions for the three conditions.

According to the draft of the state's Data Collection Plan, information identifying individual practitioners will not be released in the first year. Information will not be released in future years until certain conditions, such as statistical validity, have been met.

In its second year, the Data Institute plans to collect ambulatory-based claims, in addition to hospital-generated data. The specific conditions will be reviewed, and more will be added. The Department of Health will refine its aggregate data collection methods and continue to collect more aggregate data.

Two 15-member committees were appointed last September to help deal with privacy, technical, administrative, and other issues that are sure to arise. The Practice Parameters Advisory Committee makes recommendations to the commissioner of health and the Minnesota Health Care Commission concerning the adoption of practice parameters, which are intended to minimize unnecessary, unproven, and ineffective care. The Data Collection Advisory Committee, which will transfer its responsibilities to the Data Institute by July 1, 1994, gives advice regarding methods of data collection that minimize administrative burdens, address data privacy concerns, and meet the needs of health service researchers. Work from both of the committees will be forwarded to the Data Institute and Health Department for final approval.



Private Data Collection Efforts

Gathering data to measure outcomes is nothing new. Various health insurance plans and provider groups have been doing it in one form or another for years. In fact, pick any of the 10 plans in the Minnesota Council of HMOs and you will find some initiative that falls under the broad category of outcomes measurement.

The HMO Council provided just such information about each member health plan at a conference held this past April. A pamphlet put together for the event showed how nebulous the term outcomes measurement has become. In one example, the Metropolitan Health Plan gave cellular telephones to pregnant patients determined to be at high risk of preterm delivery. Preliminary data showed that after the phone distribution, emergency room visits by these patients decreased by 69 percent.

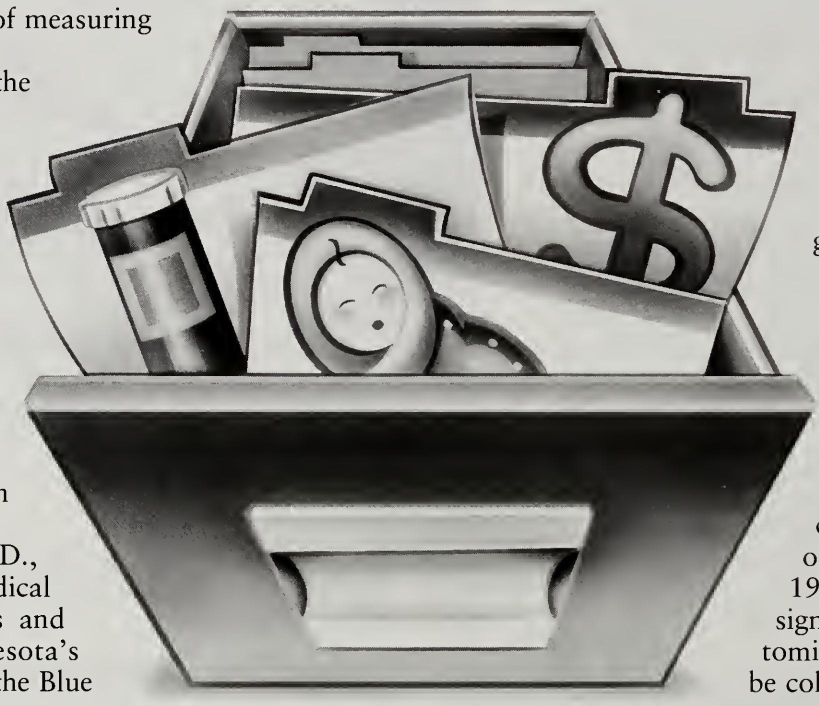
Another example involved the treatment of benign prosthetic hypertrophy (BPH). MedCenters Health Plan showed 42 patients a videotape about the risks and benefits of the surgery for BPH. After watching the video, all 42 patients chose "watchful waiting" over the interventional remedy. The study is not complete, but thus far the patients have shown no adverse outcomes, and the cost of surgery has been avoided.

Those involved in various data-gathering projects throughout the Twin Cities do not expect the state's initiatives to interfere with their own. Indeed, the state does not want to impede private efforts of measuring outcomes, says Walsh.

"The goal isn't for the state to prevent the collection of information. The goal is to make standard that collection," she says. "So long as the collection in-house enables the state to pull from it very select pieces, it's a strength of the system to have the individual plans focusing on developing their own information systems."

Steven Richards, M.D., vice president and medical director of Blue Cross and Blue Shield of Minnesota's HMO, Blue Plus, says the Blue Cross organization is not concerned because it has representatives on the committees helping to craft the outcomes measurement process. "Plus, I think the idea of the state working with the private sector is a strong one," he says.

"The way the bill was written, it is very compatible with what most of us are doing," says Catherine Borbas, executive director of the Healthcare Education and Research Foundation (HERF), a group started in 1987 to conduct applied research with clinical information to improve patient outcomes.



In addition to the state's efforts, some substantial outcomes measurement projects are already underway. HERF is coordinating the successful Minnesota Clinical Comparison and Assessment Project (MCCAP), which is studying patient outcomes using hospital procedures and post-discharge information. Since its start in 1989, MCCAP has become the largest consortium of hospitals collecting data in the country, according to Borbas. So far, it has developed practice guidelines and has collected data from 53 hospitals around the country in five study areas: total hip replacement, cholecystectomy, cesarean birth, myocardial infarction, and breast cancer. The project has an annual budget that ranges from $500,000 to $1 million, depending on the study being conducted.

Besides coordinating MCCAP, the Healthcare Education and Research Foundation is working with Prudential, the Employers Association of Minnesota, and three hospital groups (HealthEast, Fairview, and North Memorial) in a massive data collection effort. The hospitals are collecting data from all patients who undergo a hysterectomy, cardiac catheterization, or coronary angioplasty in 1993. The numbers are significant. For hysterectomies alone, data might be collected for up to 2,000 cases.

A subset of that effort is information being compiled for the Employers Association, a consortium of mainly small- and medium-sized employers. Employees at the companies that are participating in the data collection effort are scheduled to receive their first feedback this fall. The initial information they receive will be provider-specific and will deal with patient satisfaction with care. Later, the employees will receive aggregate data on functional status before and after treatment and on clinical outcomes. Sometime in 1994, employees will see provider-specific information for all areas—patient satisfaction, functional status, and clinical outcomes. Providers will be able to review the results and adjust their treatments as needed before the data are released to the employees.

Health care providers for members of the Minnesota Employers Association will be expected to answer such questions regarding patient satisfaction as, "How many people have enjoyed relief from pain (or returned to full function, etc.) as a result of your care?"

George Morrow, a principal with the Minneapolis consulting firm of William M. Mercer Inc., which has been retained to work with the Employers Association, says the data are being collected to give consumers the ability to scrutinize the performance of the physicians who see them. "Doctors are not the enemy; they're the solution to the problem. But we have to hold them accountable," says Morrow.

Another large project underway is the Institute for Clinical Systems Integration, the cooperative venture between Park Nicollet Medical Center, the Mayo Clinic, and HealthPartners (an affiliation between Group Health and MedCenters). ICSI was started after these organizations jointly won a contract to provide health care services to the Business Health Care Action Group, a coalition of large employers.

ICSI is devising systems to measure outcomes for five broad categories: breast cancer detection, cardiovascular death rates after surgery, total hip replacement, pregnancy and baby delivery, and pediatric measurement of immunized members. In addition, the institute is developing what are called process variables for 16 practice guideline groups. In other words, ICSI is defining the best ways to treat 16 common problems that are seen in primary care office settings, such as back pain, bladder infections, and high cholesterol.

Reinertsen, chair of ICSI and president and chief quality officer of HealthSystem Minnesota, says ICSI's work will go beyond gathering claims data (an area on which the state is focusing). "Claims data is a very limited set of information by which to make clinical comparisons and judgments of quality of care," says Reinertsen. For instance, a claim form might show that a patient received a $900 MRI in the first six weeks after complaining of a backache, but it would not demonstrate anything about the nature of the back problem, such as whether it was a serious medical concern.

ICSI will also start gathering data at the primary care setting in order to track both inpatient and outpatient care trends, and it will further probe into outcomes data. Currently, claims data show whether breast cancer screenings reveal signs of cancer, but the data do not reveal anything about whether the cancer is treatable. "We have additional outcomes measurement for that process. [Data] will go into the pathology reports and document what the stage was when the breast cancer was diagnosed," says Reinertsen.

Care has been exercised to ensure that the data are used constructively—not punitively, says Reinertsen. "We have a very definite philosophy that says when a doctor chooses to deviate from the guidelines, it triggers a review of the guidelines, not the doctor," he says.

Large providers and payers are not the only groups conducting outcomes research. For about six years, Minneapolis Cardiology Associates, the physician group connected with the Minneapolis Heart Institute, has been tracking the outcomes of its doctors. The group collects extensive data on each patient, including the procedures they undergo and the results that follow, says Michael Mooney, M.D., director of interventional cardiology for the practice.

The information is not shared with patients, but it is reviewed among the practice's 18 physicians. If one doctor's results are below what they should be, then treatment patterns are adjusted to improve outcomes. Mooney says the physicians have responded positively to the outcomes work. He estimates that the clinic spends about $140,000 a year to collect and analyze the outcomes data.

Physicians' Concerns

Mooney cautions that data collection is fraught with complexities and problems. Indeed, many physicians have concerns about the whole business of gathering information and using it to measure their performance.

One of the biggest fears is that the information collected will not accurately reflect case mix. Although severity indexes are used to make comparisons between providers more accurate, Mooney points out that these indexes are imperfect because they are estimations and are inherently subjective. "We don't even have scales for some of our patients. Some of them come in so sick, they don't even fall on the scale," he says.

Physicians also bring up the possibility that providers may become overly conscious of mortality rates and patient selection. For example, if a patient has only a 50-50 chance of surviving a coronary artery bypass operation, the incentive could exist to delay or put off the surgery completely. Physicians also point out the danger in forcing physicians to follow prearranged practice guidelines.

"Does it leave enough room to try new things?" asks C. Randall Nelms, M.D., president-elect of the Minnesota Medical Association. "That's the way technology and innovation is done. We don't want a sort of cookbook we have to follow. We're not automobiles—we can't put patients on a computer and spit out what's wrong."

Others have fears about how sensitive information will ultimately be used. "When you talk about data and data initiatives, questions arise about who is collecting data, who is analyzing it, and for what purpose the project is being done," says Kent Wilson, M.D., of Otolaryngology and Head and Neck Surgery, P.A. "There are a number of ways data can be used, and in the not-too-distant past, one of the major ways data was used was to find the bad apple."

Wilson notes that the state's efforts will bring about a profound change to the commercial nature of medicine. Outcomes data will now be important to a much larger group of players. Gathering and using data "will no longer be the providence of single individual practices, but will be motivating huge health plans," he says.

Allan Chernov, M.D., medical director of Medica, speaks for many when he says: "I think the goals are admirable and everyone buys into them. The question is whether they can be achieved with the program as it is outlined." **MM**

Todd Nissen is a free-lance writer in Minneapolis.

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Results of the Committee on Women Physicians' Survey

Mary Jo Connolly, M.D.

Entering the medical profession requires rigorous training and continuous work to meet high standards of performance. The rewards include a good income and a certain level of respect and success according to each physician's skill. However, such rewards and respect can be difficult for many women physicians to earn. Even with the number of women physicians increasing, women are still confronting the "glass ceiling"—discrimination that blocks their access to the top ranks in the medical profession.

A recent report from the American Medical Association's Council on Ethical and Judicial Affairs found that "women in medicine are not generally advancing to the highest levels of the profession and are continuing to encounter subtle and overt forms of discrimination during their training and careers." At the AMA's annual meeting in June, the committee reported on research showing that overall, women physicians earn one-third less than their male counterparts. Disparity in income exists even after accounting for such variables as age, specialization, and style of practice (women generally see fewer patients and spend less time practicing per week). Possible reasons for the gap in status include time taken for child bearing, sexual discrimination and harassment, lack of mentorship, and exclusion from peer networks, according to the report.

> "Women physicians continue to confront gender-related obstacles and struggle to balance career and family."

To sensitize the Minnesota Medical Association to the particular concerns and needs of women physicians, the association established the Committee on Women Physicians in 1987. One of the committee's goals is to identify, study, and make recommendations regarding issues unique to or having the greatest impact upon women doctors. To attain a better perspective of these issues and to better assess women physicians' interests and the difficulties they face in the medical field, the committee conducted a survey this past April of practicing, resident, and retired women physicians who are members of the MMA. Nearly 400 women responded, or about 31 percent of the 1,279 who were sent surveys.

Following are results from the survey and comments from respondents. The survey revealed a variety of attitudes toward issues of concern to women physicians—gender bias and discrimination, the challenge of balancing career and family, mentorship, and career satisfaction, for example.

Background

The number of women in medicine in the United States has grown dramatically in recent years, and trends indicate the growth will continue. In less than 20 years, the total number of women physicians in the United States has more than tripled, increasing from 35,636 in 1975 to 118,500 in 1992, according to statistics from the American Medical Association. More than 18 percent of all U.S. physicians are now women.

In Minnesota, the percentage of women physicians is also about 18 percent. Because women now account for about 40 percent of all medical school classes, the percentage of women physicians is certain to increase in coming years.

However, despite the growing number of women physicians, the majority of respondents in the Committee on Women Physicians' survey said they either have or maybe have experienced some form of gender bias, discrimination, or sexual harassment from both peer physicians and patients.

Discrimination by Peers

About 57 percent of the women physicians who responded to the survey indicated "yes" or "maybe" when asked whether they have encountered peer or physician gender discrimination against them in their current working environment. Some physicians reported that discrimination from peers is a constant problem. For example, one woman said, "I have many positive examples of equal treatment, but gender bias is a daily problem for me."

Another comment shows the potential damaging effect gender bias can have on women and their careers. "Most of the discrimination is very subtle, but nonetheless quite ingrained and pervasive. It is the main reason I will not be staying at my current place of employment," wrote one woman.

About 40 percent of women physicians reported that they have not encountered gender-related problems. "I am fortunate to be with a group in which women are supported and encouraged," wrote one physician.

One woman commented that being a woman is an asset. "The job opportunities are unending, and many doors have opened to me *because* I am a woman."

Some women physicians reported that gender bias is difficult to detect. "I think I'm not very sensitive to this, but I don't think that because I don't feel it, it doesn't exist," said one woman.

The survey also asked about sexual harassment. About one-quarter of respondents said they had been "touched inappropriately" by a peer physician. Of those, about 80 percent considered this sexual harassment. Almost three-quarters of respondents reported no sexual harassment.

One physician responded, "Most of the sexual harassment I've encountered has been in forms other than touching." Another commented, "I don't think I've been 'harassed,' but I do not feel my medical opinions are taken as seriously, especially by male surgeons, because I'm a woman and relatively young."

Discrimination by Patients

The survey revealed that discrimination by patients may be more widespread than discrimination by peer physicians. Approximately 66 percent of the survey respondents said they have experienced discrimination from patients.

"Occasionally, patients want only a male physician," wrote one woman. Another commented, "With many patients, I feel they treat me and interact with me differently than they would with my male counterparts." One woman physician said that when she is accompanied by a male nurse, patients often assume she is the nurse and he is the doctor.

Ironically, some women physicians, particularly those specializing in obstetrics/gynecology, reported a type of "reverse discrimination." Some said female patients "flocked" to see them, often for reasons related only to gender.

"Many patients prefer women ob/gyns, often to the apparent exclusion of other factors, such as training, competence, and other excellent male physicians," said one obstetrician/gynecologist. "I personally find this insulting."

A family practitioner wrote that she encounters gender bias "from women patients expecting something qualitatively different from me than from a male physician—listening, explaining, understanding, compassion, shared decision-making, etc."

One ob/gyn said that these positive expectations on the part of patients can create tension between female and male doctors.

Other Discrimination

Fully 70 percent of women responding to the survey said they encountered some form of discrimination while in medical training, especially as medical students and residents.

"Medical school was the worst!" wrote one woman. Another respondent described residency training as "demeaning."

About 36 percent of respondents said they have been discriminated against due to their geographic area. The problem seemed greater for rural women physicians than for women in other areas. "Being a rural female physician is a challenge. We remain a novelty," said one respondent. Physicians from outstate Minnesota seemed to report a stronger sense of isolation from their colleagues than did doctors from urban regions. "Rural medicine is very 'old boys,' " said one rural physician.

About half of the survey respondents said they have not experienced financial discrimination because of their gender. About 40 percent said they have, and the remaining were unsure.

Most women in the survey said they have not been adversely affected in advancement. Only 17 percent believe they have been passed over for promotion or for academic opportunity due to their gender. Another 17 percent said they were unsure.

One woman commented, "Discrimination is subtle. I have not been offered opportunities that have been offered to my male peers for reasons I can't quite figure out." Another respondent said she wasn't sure whether the reason she was passed over for promotion was gender related.

The Challenge of Balancing Career and Family

Statistics may show that overall women physicians work fewer hours than their male colleagues, but women in the survey nonetheless reported hectic schedules. One physician wrote: "All I do is work." Another hurriedly scrawled, "No time for anything but kids and practice."

Scarcity of time for activities outside work—including family—was a concern voiced by many respondents. In fact, when asked what types of educational programs would be of interest, about three-quarters of respondents said they would consider attending a program on "balancing a professional career with family and social obligations."

Perhaps of all the questions in the survey, the one that received the strongest comments was, "If we can assume that medicine is your first most intense interest, what is your second?" Many women physicians challenged the question itself with responses such as, "This assumption perhaps is one of the difficulties of my career. Having come close to losing my family because of medicine, this [assumption] is no longer true. Family first, career in medicine second." Another woman commented, "My family is first but, unfortunately, often takes second place."

In response to a question about outside interests, many women physicians said they have little or no time for activities. One woman with two pre-school age children listed her special interests outside the practice of medicine as "laundry, cooking, laundry, diaper changing, cleaning, laundry, grocery shopping...what else is there to life?" One woman wrote that mothering her children is her second-most intense interest after medicine, but wrote, "I'm also intensely interested in getting more time for myself, but this seems to be too much to ask!"

Some women physicians work part time, and some have taken leave from practicing to allow time for family and self. Although the survey did not ask for specific number of hours worked, it revealed that about 20 percent of the respondents work part time. However, some respondents commented that working part time has serious consequences related to gender discrimination. "My main struggles have come from trying to be taken seriously working part time and yet having the boundaries between work and home respected," said one woman. Another said, "There is resentment against wanting a reasonable lifestyle." And yet another commented, "I have family obligations (two small children) so that I'm unable to participate in business meetings. A supervisor suggested that our next physician be 'more dedicated to medicine.' "

Mentorship and Peer Networks

According to the AMA, part of the reason women physicians do not achieve the same status as men physicians is because they lack mentors and peer networks. One woman in the survey commented that "there is a need for more networking, but there is just no time to do it." Another said "the sheer number of women is so low, there's no feeling of support."

About half of the respondents said they were mentored by peers or associates, mostly by other female doctors. "More nurturing is certainly needed," said one physician.

Career Satisfaction

When respondents were asked whether they would choose medicine as a career if they could start their lives anew, 76 percent said they would, 15 percent said they would not, and 9 percent were unsure. One woman commented, "I'll know for sure when my kids reach school age and life isn't so chaotic."

About 80 percent said they would choose the same specialty, and the same percent would choose the same type of practice. About 75 percent said they would choose the same geographic area.

Demographics

Women physicians who responded to the survey were concentrated in three distinct regions. About 60 percent of respondents live in the seven-county metro area, with about 20 percent living in the southeastern portion of the state, including Rochester. The remaining 20 percent are scattered throughout the state.

Similarly, women physicians in Minnesota tend to be concentrated in a handful of specialties—the same six specialties as women throughout the nation. For the past 20 years, women physicians in the United States have specialized primarily in internal medicine, pediatrics, general practice, psychiatry, ob/gyn, and anesthesiology (in descending order), according to the AMA. In 1990, these specialties accounted for two-thirds of the total female physician population in the United States.

According to the Committee on Women Physicians' survey, nearly 70 percent of women physicians in Minnesota practice in one of these six specialties. Below are the percentages of women in the survey represented by each specialty:

• family practice	21.8%
• internal medicine	16.8%
• pediatrics	12.8%
• ob/gyn	7.9%
• psychiatry	6.5%
• anesthesiology	3.6%

Women physicians in Minnesota practice in a variety of settings. The survey showed that about 37 percent practice in a multispecialty clinic, 36 percent in a single-specialty clinic, 11 percent in a hospital, 7 percent in an academic setting, 4.5 percent in solo practice, and 2 percent in an administrative position.

About three-fourths of the respondents said they are married, and of those, 20 percent said their spouse also is a physician. Nearly 60 percent of the physicians surveyed have children. Small numbers of women physicians said they have same-sex domestic partners (three respondents), are divorced (two), or are widowed (two).

Conclusion

Women physicians play a greater role in medicine than ever before but continue to confront gender-related obstacles and struggle to balance career and family. The Committee on Women Physicians' survey reveals that women doctors perceive discrimination from peers and patients in medical school, residency, and in practice. Although the survey respondents differ in opinion on how pervasive or serious such discrimination is, women physicians clearly need further integration and inclusion at all levels of medical practice and training.

Medical practices may need to allow for greater flexibility in practice styles and encourage better peer communication. Many respondents said their families take priority over their careers, but a large number expressed frustration because they are too busy and overcommitted to devote much time to family. Indeed, most respondents indicated a great interest in learning to balance family and work.

The results of the survey will help make all Minnesota physicians aware of women physicians' needs and concerns. As part of this goal, the Committee on Women Physicians is planning a conference called "The Psychology of Change" to be held September 29 at the MMA Annual Meeting in Duluth. The conference, which is open to all physicians, is intended to help physicians understand gender bias and to promote change as a personal responsibility. MM

Mary Jo Connolly is chair of the Minnesota Medical Association's Committee on Women Physicians and was previously treasurer of Minnesota Women Physicians, a professional association, for seven years. She practices general internal medicine in St. Paul, Minnesota.

MMA Annual Meeting

Schedule of Events

Wednesday, Sept. 29

11 a.m. to 6 p.m.
General registration

12 noon to 1 p.m.
Minnesota Women Physicians/Committee on Women Physicians luncheon

12:30 p.m. to 3:30 p.m.
MMA Board of Trustees meeting/lunch

1 p.m. to 4 p.m.
"The Psychology of Change"—an educational program sponsored by the Committee on Women Physicians (all physicians are welcome). Cost: $25

3:30 p.m. to 5 p.m.
MEDPAC Annual Meeting

4 p.m. to 5 p.m.
Young Physicians Section caucus

5 p.m. to 6 p.m.
AMA open forum

6:30 p.m. to 9 p.m.
Welcome reception, train ride to Lester River, buffet dinner, hospitality, and entertainment.
Board train at the depot.

Thursday, Sept. 30

6:45 a.m. to 5 p.m.
General registration

7 a.m. to 7:30 a.m.
Delegate orientation

7:30 a.m. to 8 a.m.
Reference committee orientation

8 a.m. to 8:45 a.m.
Media briefing

8 a.m. to 9 a.m.
Three simultaneous caucuses:

- Ramsey
- Hennepin
- Greater Minnesota

9:15 a.m. to 11 a.m.
MMA House of Delegates (Session I)

11:15 a.m. to 12:45 p.m.
Awards lunch

1 p.m. to 3:30 p.m.
Reference committee open hearings

3:30 p.m. to completion
Reference committee executive session

6 p.m. to 6:30 p.m.
Pre-inaugural reception

6:30 p.m. to 9:30 p.m.
President's inaugural dinner and festivities.
Entertainment by Stoney Lonesome.

Friday, Oct. 1

7 a.m. to 8:30 a.m.
MMA Board of Trustees breakfast meeting

8 a.m. to 12 noon
General registration

8:30 a.m. to 10:15 a.m.
Two simultaneous caucuses:

- Ramsey & Hennepin
- Greater Minnesota

10:30 a.m. to 3 p.m.
MMA House of Delegates (Session II), includes lunch

3 p.m. to 3:30 p.m.
Board of Trustees organizational meeting

Spouse Activities

9 a.m.
Tour of Glensheen - Cost: $8

12 noon
Luncheon

Shuttle buses will be available from the Radisson & Holiday Inn. Times will be posted at hotels and the convention center. Continuous break service will be provided in the registration area of the center.

Duluth Entertainment and Convention Center,
September 29-30 and October 1, 1993

MMA Annual Meeting 1993

Resolutions for Consideration by the MMA House of Delegates

Each year, the Minnesota Medical Association House of Delegates considers a number of resolutions for adoption as MMA policy. Prior to the MMA Annual Meeting each September, the speaker of the House appoints reference committees to assist the House in its deliberations.

The reference committees hold open hearings on the resolutions after the first session of the House of Delegates. Members of the MMA and delegates are welcome to speak at the hearings. An authorized representative of the society or specialty group that submitted a resolution is requested to be present to support the resolution and clarify the position of its sponsors. When the open hearings are complete, each committee prepares a report that includes its recommendations for action on the resolutions and presents the recommendations to the House at its second session.

The House of Delegates has several options with regard to the resolutions. First, it can adopt resolutions, which then become MMA policy. It also can "adopt as amended" resolutions, indicating that such resolutions have been revised since originally proposed. The author of a resolution may make amendments during open hearings, and reference committees may make amendments during the executive session. A resolution is considered amended even if a few words are changed or if any correction is made. If multiple resolutions are combined, the appropriate action is to "adopt a substitute."

The House may choose to refer resolutions to the MMA Board of Trustees for further study. The Board gives such resolutions consideration and reports back to the House of Delegates at the next annual meeting.

Another option is to refer the decision to the MMA Board of Trustees. In such instances, the House gives the Board discretion to decide whether to adopt the resolution and to implement action. Again, the Board reports back to the House at its next meeting.

The House also may choose to refer resolutions to the Board of Trustees for implementation. This procedure is used when the House wants a resolution implemented as soon as possible. Again, the House allows the Board discretion in implementing House policy. This action is usually combined with another decision, such as "adopt and refer for implementation," or "refer for decision and implementation to the MMA Board of Trustees."

Finally, the House may choose *not* to adopt resolutions. It also has the power to rescind resolutions that were passed at previous meetings.

Following are the resolutions for consideration at the 1993 Annual Meeting (submitted as of August 16).

RESOLUTION 1

Waiver of Copayments and Deductibles Under Medicare Part-B

Introduced by: MMA Committee on Ethics and Medical-Legal Affairs.

Be it resolved that the MMA House of Delegates request that the AMA seek promulgation of a safe harbor provision by the Office of Inspector General, U.S. Department of Health and Human Services, for the non-routine waiver of Medicare Part-B copayments and deductibles for indigent patients.

RESOLUTION 2

Sleep Deprivation in Adolescents

Introduced by: Minnesota Psychiatric Society.

Be it resolved that the MMA support legislation restricting the hours of work for children and teenagers to limit late-night and early morning work schedules.

RESOLUTION 3

Designation of Obstetrician-Gynecologists as Primary Preventive Care Providers

Introduced by: The Minnesota Obstetrical and Gynecological Society.

Be it resolved that the MMA urge the Legislature, Congress, third-party payers, and all interested parties to acknowledge the role of obstetrician-gynecologists as primary preventive-care providers for women.

RESOLUTION 4

Feasibility of a Single-Payer System

Introduced by: Ramsey County Medical Society.

Be it resolved that the MMA design and implement an education program for Minnesota physicians, legislators, and the Minnesota Health Care Commission that outlines the advantages and disadvantages of a single-payer system compared with the managed competition model.

RESOLUTION 5

Preparticipatory Physical Examinations

Introduced by: MMA Medical Practice and Planning Committee.

Be it resolved that the MMA forward to the Minnesota State High School League the following recommended proposals relating to pre-participatory physicals, as adopted at the 1990 AMA Annual Meeting, along with the accompanying report (BOT Rep. R, A-90:77-84):

1. The development of consistent standards among schools for pre-participation athletic examinations.

2. Only licensed M.D.s and D.O.s perform pre-participation examinations.

3. The decision of whether or not an adolescent is healthy and physically mature enough to participate in a sport be made by a qualified physician.

4. The decision of when an injured adolescent resumes athletic participation be made by a qualified physician.

5. The guidelines established by the American Academy of Pediatrics be used to determine eligibility for sports participation.

Along with the additional proposal that mid-level practitioners perform pre-participation physicals when under the supervision of a licensed physician and within their scope of practice.

MMA Officer Nominees for 1993-94

Elections for MMA officers and for AMA delegates will be held at the 1993 MMA Annual Meeting in Duluth. Nominations will remain open through the first session of the MMA House of Delegates on September 30, 1993.

The MMA Board of Trustees has accepted the following slate of nominees for 1993-94 MMA offices, proposed by the MMA Committee on Nominations:

President-Elect:
Andrew J. K. Smith, M.D., Plymouth
Vice-President:
Raymond G. Christensen, M.D., Moose Lake
Richard E. Streu, M.D., Minneapolis
Secretary:
Thomas B. Dunkel, M.D., St. Paul
Treasurer:
Kenneth B. Heithoff, M.D., St. Louis Park
Neil R. Hoffman, M.D., Minneapolis
Erick Reeber, M.D., Bagley
Speaker of the House:
Eugene W. Ollila, M.D., Minneapolis
Barbara P. Yawn, M.D., Rochester
Vice Speaker of the House:
Allan J. Chernov, M.D., Minneapolis
Michael J. Murray, M.D., Rochester

Elections will be held for three AMA delegates and three alternate delegates whose terms begin January 1, 1994.

A. Stuart Hanson, M.D., Minneapolis, and Ben P. Owens, M.D., Hibbing, are candidates for reelection as AMA delegates. Thomas A. Stolee, M.D., Duluth, who is currently an alternate delegate, has been nominated for election as a delegate.

David M. Van Nostrand, M.D., St. Cloud, and Thomas L. Peyla, M.D., Rochester, are candidates for election as alternate delegates.

RESOLUTION 6

Physician License Surcharge

Introduced by: Ramsey County Medical Society.

Be it resolved that the MMA, through its delegation to the AMA, actively seek AMA support for a repeal of the current HCFA policy that permits states to participate in the Medical Assistance surcharge program.

RESOLUTION 7

Health Services Tax

Introduced by: Ramsey County Medical Society.

Be it resolved that the MMA actively seek repeal of the 2 percent tax during the 1994 legislative session to be replaced by a broad-based state funding mechanism more appropriate for the long-term support of this major new health care program.

RESOLUTION 8

Feasibility of "Any Willing Provider" Legislation

Introduced by: Ramsey County Medical Society.

Be it resolved that the MMA, through its Legislative Committee, explore the need for and merits of pursuing "any willing provider" legislation in Minnesota, and be it further resolved that the MMA Legislative Committee report its findings and recommendations to the MMA Board of Trustees by December 31, 1993, for possible introduction and action during the 1994 legislative session. [Note: "any willing provider" legislation requires managed care plans to contract with any provider willing to meet the terms of the contract and plan participation criteria.]

RESOLUTION 9

Public Sector Medical Reimbursement Education Program

Introduced by: Ramsey County Medical Society.

Be it resolved that the MMA, in conjunction with its component medical societies, develop an education forum for physicians and/or their clinic managers to enhance understanding and facilitate patient utilization of local, state, and federal health care programs such as TEFRA, SSI, MCHA, MinnesotaCare, EPSDT, Medicaid, Medicare, GAMC, etc.

RESOLUTION 10

Hospital Accreditation

Introduced by: Ramsey County Medical Society.

Be it resolved that the MMA, in conjunction with the Minnesota Hospital Association, examine the current process utilized to accredit hospitals in providing various health care services and develop recommendations designed to improve the current accreditation process, or create a complementary Minnesota-focused process, so as to ensure that hospitals can fully provide and support services they represent themselves as being able to provide.

RESOLUTION 11

Fee Review Companies

Introduced by: Ramsey County Medical Society.

Be it resolved that the MMA pursue the development of legislation or regulation that would put in place, within the appropriate state regulatory agency, a process to review the financial arrangements between for-profit fee review companies and insurance or managed care companies, to ensure that these arrangements do not inappropriately induce fee review companies to decrease reimbursement to physicians and other health care providers.

RESOLUTION 12

Classification of Learning Disabilities as a Medical Neurodevelopmental Diagnosis

Introduced by: Ramsey County Medical Society.

Be it resolved that the MMA pursue, with the appropriate state regulatory agencies and the Legislature, a requirement that all third-party payers provide coverage and reimbursement for the treatment of learning disabilities and A.D.D. at the same levels provided for other neurodevelopmental and medical conditions.

RESOLUTION 13

Bylaws Revisions

Introduced by: MMA Board of Trustees.

(Whereas the annual review of the MMA bylaws indicated a need for clarifying language regarding the qualifications for seating of specialty societies in the House of Delegates and on the Interspecialty Council and defines the Interspecialty Council and clarifies its status, and whereas the annual review of the MMA bylaws revealed that these bylaws stipulate the terms of appointments of members of MMA committees rather than authorization of the MMA Board of Trustees to establish terms, therefore) be it resolved that the attached bylaws revisions, which were approved by the MMA Board of Trustees, be adopted.

RESOLUTION 14

STD Testing

Introduced by: Wright County Medical Society.

Be it resolved that, for the public good, the MMA and the AMA delegations not differentiate HIV (human immunodeficiency virus) from other lab testing and encourage local and national initiatives to deal with HIV testing no differently than other sexually transmitted disease (STD) testing.

RESOLUTION 15

Proposed Excessive Federal Fees for Aviation Medical Examiners

Introduced by: Bob Milligan, M.D., F.A.A.F.P., Senior Aviation Medical Examiner, Wright County Medical Society.

Be it resolved that the MMA direct its AMA delegation to urge the AMA to oppose the unnecessary and excessive fees and surcharges for aviation medical examiners.

RESOLUTION 16

Due Process

Introduced by: Hennepin County Medical Society.

Be it resolved that the MMA lobby the Minnesota Department of Health and the Minnesota Health Care Commission to require that due process be required for all integrated service networks in order to protect the basic rights of physicians with respect to credentialing and quality assurance activities, and be it further resolved that the Minnesota delegation to the AMA encourage the AMA to lobby the Clinton administration to provide due process within the accountable health plans [envisioned by the Clinton administration] for the same purpose.

RESOLUTION 17

Enterprise Liability

Introduced by: Hennepin County Medical Society.

Be it resolved that the MMA work with the Minnesota Department of Health and the Health Care Commission to develop ways, other than “enterprise liability,” to provide medical malpractice coverage for physicians working in integrated service networks, and be it further resolved that the Minnesota delegation to the AMA encourage the AMA to work with the Clinton administration to accomplish the same end at the national level, and be it further resolved that the MMA continue to call for meaningful tort reform as exemplified by current MMA and AMA policy in the area of professional liability, and be it further resolved that the MMA actively support tort reform similar to the MICRA reforms enacted in California.

RESOLUTION 18

Health Reform

Introduced by: Hennepin County Medical Society.

Be it resolved that the MMA develop a comprehensive education program to inform its members on the threats, opportunities, and options available in new systems of care promoted by MinnesotaCare and national health reform.

RESOLUTION 19

Reference Laboratory Contracts

Introduced by: Hennepin County Medical Society.

Be it resolved that the MMA encourage Minnesota health care plans to enlist the input and advice of plan physicians [when developing reference laboratory contracts], consider the effects of reference lab contracts on good patient care, provide an adequate period of time from announcement to introduction of such plans, and communicate the announcement to physicians in an appropriate manner.

RESOLUTION 20

Consolidation of Federation Resources

Introduced by: Lake Superior Medical Society.

Be it resolved that the MMA study the issues of consolidation of component societies under an administrative arm of the MMA or other methodologies of developing employee benefit programs to employees of component portions of the federation, and be it further resolved that the MMA study, and possibly implement, other administrative mechanisms of consolidation of activities of the federation, particularly in the area of public policy development and implementation, to include, but not be limited to, county medical societies and specialty societies, and be it further resolved that the MMA delegation to the AMA consider bringing the issue of expanded federation consolidation, particularly in the areas of employee benefits, shared specific administrative functions, and public policy development and implementation.

RESOLUTION 21

The Ethics of Physicians' Influence of Their Patients in Legislative Matters

Introduced by: Executive Committee of the Zumbro Valley Medical Society.

Be it resolved that the paper entitled, "The Ethics of Physicians' Influence of Their Patients in Legislative Matters," drafted by the Zumbro Valley Medical Society, be filed, that the guidelines included in the paper be adopted as MMA policy, and that the paper and guidelines be forwarded to the AMA for consideration.

RESOLUTION 22

Continuing Medical Education Mission Statement

Introduced by: MMA Committee on Accreditation and Continuing Medical Education.

Be it resolved that the MMA adopt the CME mission statement (attached to Report #20) as revised by the Committee on Accreditation and Continuing Medical Education and approved by the MMA Board of Trustees.

RESOLUTION 23

Laboratory Accreditation Through COLA

Introduced by: Minnesota Society of Internal Medicine.

Be it resolved that the MMA endorse the accreditation program for office laboratories of the Commission on Office Laboratory Accreditation, and be it further resolved the MMA publicize information about the Commission on Office Laboratory Accreditation and encourage that all physicians seek clinical laboratory accreditation through COLA in lieu of federal certification.

RESOLUTION 24

Commendation for Doctors Murray & Crimmins

Introduced by: MMA Young Physicians Section.

Be it resolved that the MMA expresses its sincere thanks to Michael J. Murray, M.D., and Timothy J. Crimmins, M.D., for their efforts and contributions to the MMA and especially the MMA Young Physicians Section.

RESOLUTION 25

Water Safety

Introduced by: Range Medical Society.

Be it resolved that the MMA support legislation that mandates the use of life jackets or floatation devices in the state of Minnesota.

RESOLUTION 26

Bicycle Safety

Introduced by: Range Medical Society.

Be it resolved that the MMA support legislation that mandates the use of bicycle helmets in the state of Minnesota.

RESOLUTION 27

AIDS Testing

Introduced by: Range Medical Society.

Be it resolved that the MMA support legislation that would treat HIV like other communicable diseases and allow HIV testing without informed consent prior to testing.

RESOLUTION 28

Public Access to the National Practitioner Data Bank

Introduced by: MMA Committee on Professional Liability.

Be it resolved that the MMA strongly oppose congressional action to allow the general public access to information contained in the Data Bank since such access will lead to unwarranted concern, confusion, and misinterpretation, thereby damaging the health care industry and creating a low-confidence environment.

RESOLUTION 29

Promotion of the Use of Certified Medical Interpreters

Introduced by: MMA Committee on Minority Affairs.

Be it resolved that the MMA collaborate with the Minnesota Department of Health, Refugee Health Office, and the nonprofit Community Interpreter Service to promote the use of certified medical interpreters when necessary to deliver good quality health care between English-speaking physicians and patients who primarily use another language, and be it further resolved that the MMA make efforts to improve knowledge among physicians and health planners regarding the need for confidential, accurate, neutral, and culturally sensitive medical interpretation similar to the provision of services for hearing-impaired patients.

RESOLUTION 30

MMA Award for Meritorious Service to Minority Populations

Introduced by: MMA Committee on Minority Affairs.

Be it resolved that the MMA establish and present an annual award for meritorious professional services by a Minnesota physician to Minnesota minority populations.

RESOLUTION 31

Legislation Preventing Disclosure of Information to Patients

Introduced by: Minnesota Academy of Otolaryngology.

Be it resolved that the MMA urge the Legislature to refer S.F. 1113 to a study committee for consideration of the best way to accomplish the goal of ensuring fair, nondeceptive advertising in a way that would not impair the ability of physicians to disclose information to their patients and to colleagues and that would be constitutional; or, alternatively, that the Legislature be urged to adopt appropriate amendments to S.F. 1113 to permit truthful disclosures by physicians of their board certifications.

RESOLUTION 32

Medicare Balance Billing

Introduced by: Zumbro Valley Medical Society.

Be it resolved that the MMA strongly support the passage of H.F. 1264/S.F. 846, which would allow physicians to bill up to the federal allowable amount for Medicare recipients with an annual income above 250 percent of the federal poverty level.

RESOLUTION 33

Commendation for Anthony Jaspers, M.D.

Introduced by: Minnesota Academy of Ophthalmology.

Be it resolved that the MMA join with the Minnesota Academy of Ophthalmology in extending its sincere appreciation to Anthony Jaspers, M.D., for his dedication, commitment, time, and talent in serving the citizens of Minnesota.

RESOLUTION 34

Utilization Review and Workers' Compensation

Introduced by: MMA Committee on Workers' Compensation.

Be it resolved that the MMA introduce legislation expanding the Utilization Review Act of 1992 to apply to all utilization review decisions made under workers' compensation, including all requirements for prior authorization as described in the recently effective treatment parameters for workers' compensation.

RESOLUTION 35

Standard DNR Form for Use by Emergency Medical Services Personnel

Introduced by: MMA Committee on Ethics & Medical-Legal Affairs.

Be it resolved that the MMA approve the standardized DNR form developed by the Metro Emergency Physicians Committee and revised by the MMA Committee on Ethics and Medical-Legal Affairs, which is entitled "Metro Emergency Physicians Committee Resuscitation Guidelines."

RESOLUTION 36

Regulation of Traditional Midwives

Introduced by: Minnesota Obstetrical and Gynecological Society.

Be it resolved that the MMA oppose legislation that will transfer the responsibility of traditional midwives from the Board of Medical Practice to the Department of Health, and be it further resolved that the MMA support state efforts to conduct a study and collect data regarding planned home births attended by traditional midwives to assess the nature of the practice and the occurrence of adverse outcomes before legislation is enacted and significant amounts of money are expended that would affect only a small number of individuals in the state, and be it further resolved that the MMA support the efforts of the certified nurse midwife community to explore options of incorporating direct entry midwives into a licensed status via a formal education program, and be it further resolved that the MMA oppose legislation and regulations that formally recognize home birth by traditional midwives as an acceptable and sanctioned option for childbirth unless such individuals are required to be appropriately educated and licensed to ensure patient health and safety.

RESOLUTION 37

Commendation for A. Stuart Hanson, M.D.

Introduced by: Hennepin County Medical Society.

Be it resolved that the MMA commend A. Stuart Hanson, M.D., for his outstanding leadership as president of the Minnesota Medical Association, and be it further resolved that the MMA extend its sincere appreciation for his leadership, dedication, time, and talent in serving as president.

RESOLUTION 38

Commendation for George V. Tangen, M.D.

Introduced by: Hennepin County Medical Society.

Be it resolved that the MMA commend George V. Tangen, M.D., for his dedication and hard work over the past 12 years and encourage his continued participation in the activities of this association.

RESOLUTION 39

Commendation for Ronald L. Villella, M.D.

Introduced by: Hennepin County Medical Society.

Be it resolved that the MMA commend Dr. Villella for his dedication and commitment to the medical profession and the association. MM

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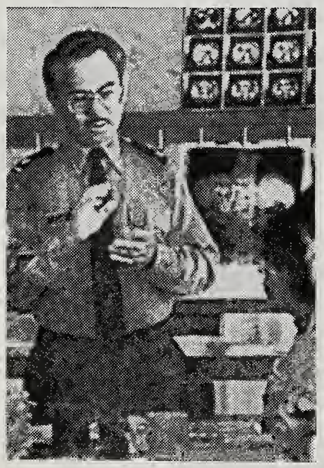

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Asthma in Childhood

A Review

C. M. Carlson, M.D., and E. J. O'Connell, M.D.

ABSTRACT

Asthma is currently considered by many to be a disease out of control. The prevalence and severity of asthma have increased in recent years, especially in children. Asthma is a very diagnosable condition. Better methods for treatment and monitoring now exist. It is hoped that with the implementation of expanded knowledge of asthma, this very common condition in childhood can be brought under better control.

Asthma is a lung disease characterized by almost completely reversible airway obstruction, airway inflammation, and heightened airway responsiveness to a number of stimuli. Because the prevalence rate of asthma has increased 29% and the mortality rate from asthma has increased 31%[1] in the last decade, it has become a high national priority for all physicians to understand the pathophysiology and treatment of this disorder. The National Heart, Lung, and Blood Institute has published an expert panel report to help educate health care practitioners.[2]

Epidemiology

In children, asthma is the most common chronic disease and is one of the 10 most frequently cited reasons for visits to the pediatrician.[3] The prevalence of asthma has been estimated at approximately 7% for children overall, but prevalence is higher in black children and in boys.[4] The incidence of asthma in children between the ages of 3 and 17 years has increased 50% in the last decade.[3] In a study based in Rochester, Minnesota, of asthma incidence rates for both children and adults from the years 1964 to 1983, a significant increase in asthma incidence was seen only in children.[5]

Pathophysiology

The clinical manifestations of asthma are the consequences of airway obstruction. This obstruction is directly related to airway hyperresponsiveness and is thought to be initiated by a series of inflammatory events that occur in the airway. Patients with asthma can develop cough, wheeze, and dyspnea after exposure to stimuli, including allergens, environmental irritants, upper respiratory tract infections, cold air, and exercise.

Mechanisms that have been postulated to explain airway hyperresponsiveness have included airway inflammation, epithelial injury, and alterations in intrinsic neural mechanisms. Morphologic studies of asthmatic airways show inflammatory cell infiltration, as well as increased levels of inflammatory mediators.[6] Studies show that asthma is associated with anything ranging from minor disruption of the respiratory epithelium to almost complete denudation.[7] The airways of asthmatics are further characterized by increased responsiveness to cholinergic substances, which may suggest changes in parasympathetic control of airway function.[8]

Precipitating Factors

The most common inciting factor in childhood asthma is a viral respiratory tract infection, and, in fact, viral infections account for up to 40% of wheezing episodes in children during the fall and winter seasons.[9] Children who suffer from viral lower respiratory tract infections in infancy are more likely to develop asthma in childhood. This has been shown to be true with both respiratory syncytial virus and parainfluenza viral infections.[9] Allergens, such as house dust mite, animal dander, and the outdoor mold Alternaria, can also precipitate childhood asthma. Exercise and irritants such as cigarette smoke also have been implicated as triggering factors. In fact, exposure to active or passive tobacco smoke is associated with an increased risk of asthma exacerbations. Forty-seven percent of children of smoking mothers have more symptoms of respiratory illness and fourfold greater airway responsiveness than do children of nonsmoking mothers.[10] Furthermore, these effects can worsen with more years of exposure, especially in boys.[11]

Risk Factors

The risk factors for the development of asthma in children are many and likely represent a combination of genetic and environmental factors. When one parent of a child has asthma, the child has a 25% chance of developing asthma, and when both parents have asthma, the child has a 50% chance of developing the condition.[12] In addition, the presence of atopy (i.e., symptoms of rhinitis, atopic dermatitis, asthma) in a child's family history places that child at risk for the development of asthma. According to one study, 47% of infants born to parents who are both atopic develop atopic disease, compared with 13% when neither parent is atopic and 29% when one parent is atopic.[13]

As mentioned previously, children who experience severe viral lower respiratory tract infections and those exposed to active and passive cigarette smoke are more likely to develop asthma. Other environmental factors include smoke from heating with wood and allergens. High dust mite levels correlate with earlier development of asthma in the atopic patient.

Risk factors for mortality due to asthma include previous life threatening episodes, depression, low self esteem, and poor access to medical care. The risk of mortality is double in the black population.[14]

Diagnostic Approach

Children are diagnosed with asthma based on their medical history and a physical examination. A typical history for childhood asthma includes: 1) prolonged cough and/or wheeze following upper respiratory tract infections; 2) coughing in bunches; 3) coughing more at nighttime; and 4) coughing to the point of gagging/vomiting. Furthermore, a history of cough triggered by exertion, excitement, crying, laughing, cold air, and irritants such as cigarette smoke can also be a clue for diagnosing asthma. Childhood asthma can be characterized by cough, wheeze or both. Some children have "cough-type" asthma and never wheeze at all.[15]

Also important in the diagnosis of childhood asthma is a complete environmental history, including presence of pets, exposure to cigarette smoke, and exposure to other environmental factors that may trigger or exacerbate asthma. Family history can also be helpful in diagnosis, especially if atopy is present in the family.

The physical examination is also helpful in the diagnosis of childhood asthma. Most children with asthma appear healthy and are well nourished. During an exacerbation, a child with asthma can have wheezing that is more pronounced on forced expiration. A child with "cough-type" asthma usually will have a clear chest to auscultation.

Laboratory evaluations are, in general, not helpful in the diagnosis of asthma. However, pulmonary function testing can be used as an aid to diagnosis, especially if used in conjunction with a methacholine challenge. We have performed standard spirometry and methacholine challenges in young children. Although no guidelines have been published for children under 5 years, a percentage change in FEV1 can be determined following a methacholine challenge, thereby allowing the physician to detect airway hyperresponsiveness compatible with the diagnosis of asthma.

Treatment

Treatment options for children with asthma are many and must be tailored individually for optimal response. Because of the significant risk factors posed by passive cigarette smoke, every effort should be made to reduce exposure. Should a child's history show that asthma worsens with exposure to pets or aeroallergens, selected skin tests should be performed; if positive, avoidance should be discussed. For example, if the child is allergic to house dust mite (a known asthma trigger), exposure can be minimized through environmental controls such as mattress/pillow encasings, rug treatments, and weekly house cleaning.

The pharmacologic therapy for asthma has improved greatly in the last decade. Theophylline, although a potent bronchodilator, is no longer considered a first-line therapy for episodic asthma. Theophylline offers no benefit over the use of inhaled beta agonists and corticosteroids in the emergency-room setting,[16] but, some evidence exists that theophylline is helpful in chronic daily asthma.[17] The drug is especially useful in nocturnal asthma[18] and can be steroid sparing.[19]

Beta agonists such as albuterol, terbutaline, and metaproterenol are the mainstay of initial treatment of the acute asthmatic. All three of these medications, as well as most other beta agonists, are available in oral form, powdered inhaler, metered-dose inhaler, and nebulized form. Pirbuterol is now available as a self-actuating inhaler for those unable to coordinate the activation with inhalation. The current recommendations in the National Heart, Lung, and Blood Institute's "Guidelines for the Diagnosis and Management of Asthma"[2] state that beta agonists such as albuterol and terbutaline should be used on a p.r.n. basis because scheduled regular use of beta agonists may be associated with increased bronchial hyperactivity and, therefore, asthma deterioration.[20]

Current medications available for the treatment of the inflammatory nature of asthma are cromolyn sodium and inhaled corticosteroids. Cromolyn sodium can be delivered via metered-dose inhaler or nebulizer. It is thought to block both the early and late-phase reactions in allergic asthma and to prevent the reflex bronchoconstriction seen in patients with exercise-induced asthma, primarily when used with a beta agonist prior to exercise.[21] An example of appropriate dosing of cromolyn sodium would be two puffs, three to four times daily via metered-dose inhaler; or one ampule, three times daily via nebulizer for a three-month trial. A newly approved anti-inflammatory agent, nedocromil sodium, is thought to work in a similar manner to cromolyn sodium, and the dosage is two puffs, four times daily via metered-dose inhaler for a trial of a few months. According to the package insert, nedocromil sodium may actually be less effective than cromolyn.

Inhaled corticosteroids are now considered the treatment of choice for chronic daily asthma. Not only do they typically block the early and late-phase responses to allergic triggers, but they are also thought to decrease bronchial hyperactivity.[22] Examples of available preparations and their dosages include triamcinolone, four puffs, three times daily; beclomethasone, two puffs, four times daily; and flunisolide, two puffs, two times daily. Recent published data reveal possible growth suppression in young preadolescent males.[23]

Acute flares of asthma are best treated by inhaled beta agonists and, if necessary, a short (five days) burst of oral corticosteroids, such as prednisone, two mg/kg/day, up to 60 mg/day.

The mainstay of therapy for children with asthma and their parents is education and home monitoring. Each patient diagnosed with asthma should receive a thorough education regarding the pathophysiology, triggering factors, treatment, and monitoring of asthma. Details of environmental control and peak-flow monitoring should be supplied. Inhaler technique should be carefully taught and reviewed at subsequent visits. When children are old enough to use peak-flow monitoring at home, it can allow them to find their "personal best" peak flow and can be used as an aid to determining "in-trouble" times.

Conclusion

The increasing incidence and mortality rates for asthma are alarming. A newer understanding of asthma as an inflammatory disease has guided efforts in finding better treatments; however, despite these efforts, asthma remains a very real and current threat to our children. It is hoped that ongoing research on the inflammatory mediators of this disease will stem the rapid increase in asthma incidence and mortality. MM

C. M. Carlson recently completed fellowships in pediatrics and allergy and immunology at the Mayo Clinic and is now in practice at Edina Pediatrics. E. J. O'Connell is a professor of pediatrics at the Mayo Medical School in Rochester, Minnesota.

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Data Initiatives Under MinnesotaCare

Elizabeth S. Wright, J.D.

MinnesotaCare, Minnesota's health care reform legislation, is designed to limit the growth of health care expenditures and to ensure that health care is available to all Minnesota residents. These objectives are to be achieved principally by containing the costs of health care through direct regulation of health care spending and through measures designed to make the health care market operate more efficiently and effectively. To ensure that specific cost-containment measures are based on data rather than on speculation, the commissioner of health is required under MinnesotaCare to collect financial and patient-care data from health care providers and other participants in the health care system on an ongoing basis. Accordingly, health care providers will be required in coming years to submit a variety of data to the commissioner and various entities established to assist with the collection, analysis, and dissemination of that data. (See also, "The Information Solution, page 14.)

Entities Involved

MinnesotaCare mandates the formation of several entities to facilitate the collection, analysis, and dissemination of data related to health care, including the Data Institute, the Data Analysis Unit (formerly the Health Care Analysis Unit), and the Information Clearinghouse.

The Data Institute is intended to be a "public-private mechanism for the collection of health care cost, quality, and outcomes data."[1] It will be composed of the commissioner of health and a 20-member board of directors representing health care providers, health carriers, group purchasers, various state agencies, and consumers.[2] With the assistance of the Practice Parameters Advisory Committee and the Data Collection Advisory Committee (the latter of which will be phased out by July 1994), the Data Institute is charged with responsibility for establishing the methodology for the collection of data; providing direction on types of data that are useful to providers, consumers, and purchasers; and determining the conditions under which disclosure of the data will be made.[3] The Data Institute also will be responsible for establishing a public/private data system that facilitates, among other things, dissemination of information to the state, consumers, group purchasers, employers, and providers.[4] Although the Data Institute is not yet operational, the commissioner is authorized to collect data that must be submitted under the cost containment and data collection legislation, provided that the commissioner first develops standardized forms and procedures for collecting and processing the data.[5]

> "The commissioner of health is required under MinnesotaCare to collect financial and patient care data on an ongoing basis."

The Data Analysis Unit is responsible for assisting the commissioner in improving the efficiency and effectiveness of health care through analysis of information collected. It is principally responsible for analyzing data collected by the Data Institute, but it has some responsibility for data collection and dissemination.[6]

The commissioner is required to establish an Information Clearinghouse within the Department of Health to disseminate information developed through analysis of the collected data. Health care providers, consumers, employers, and health carriers will be able to obtain information on health care costs and quality in Minnesota, including data on the outcomes and costs of alternative interventions for given clinical conditions, information on practice parameters, and information on the costs and quality of integrated service networks.[7]*

Data Collection and Cost-Containment

MinnesotaCare incorporates numerous measures designed to contain the costs of health care in Minnesota. These measures range from direct regulation of health care revenues and spending to policies designed to improve the efficiency and effectiveness of the health care system. Implementation of each measure depends on the collection of data, the majority of which will come from health care providers.

MinnesotaCare directs the commissioner to set annual limits on the rate of growth of public and private spending on health care services. The commissioner is required to reduce the rate of growth of health care spending by at least 10 percent per

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*For more information on integrated service networks, see "ISN Legislation Changing Health Care Delivery: Physicians Should Prepare to Compete in New Marketplace," *Minnesota Medicine*, July 1993, page 27.

year for the next five years.[8] The commissioner also must establish limits on the increase in revenue for each health care provider for the calendar years 1994 and 1995. The limit on revenue growth must be equivalent to limits on the rate of growth of public and private spending.[9] For calendar year 1994, the projected annual limit on the rate of growth for public and private spending on health care services for Minnesota residents is 9.2 percent.[10]

To help forecast rates of growth, set limits, and ensure compliance with the revenue limits, the commissioner is authorized to collect financial data from Minnesota health care providers, including data on sources of revenue and the nature and amount spent to provide health care during specific time periods.[11]

Certain measures will be implemented to improve the efficiency and effectiveness of the health care system. For example, practice parameters will be established and data will be disseminated to providers to help eliminate inefficient and ineffective methods of preventing, diagnosing, treating, and managing medical problems.[12] Consumer awareness of comparative costs and quality of health care services will be increased to improve functioning of the health care market.[13] Additionally, policies will be designed to foster more efficient use and distribution of new and existing high-cost pharmaceuticals and high-cost health care technologies, procedures, and capital expenditures.[14]

The Data Analysis Unit, together with the commissioner, is charged with responsibility for improving the effectiveness of health care, in part by collecting data and establishing a data base on health outcomes for a limited number of specific health conditions, emphasizing conditions that account for a significant portion of total health care costs due to frequency of the condition and unit cost of treatment.[15] The unit is directed to focus initially on conditions commonly treated in hositals and freestanding outpatient surgical centers. Using this data, the Data Analysis Unit may develop new practice parameters for the specific health conditions studied. The unit is then responsible for disseminating practice parameters, as well as the research findings on which these parameters are based, to all practitioners in the state who diagnose or treat the medical condition to which the practice parameter applies.[16] The data collected will also be available to persons responsible for purchasing health care services on behalf of health carriers and groups; to researchers associated with university research centers who are conducting research on health care outcomes, practice parameters, and medical practice styles; and to researchers working at the commissioner's direction.[17]

> "Data will be collected from nearly every participant in the health care industry."

Also in an effort to improve the effectiveness of health care, the unit will collect information on mortality, morbidity, patient functional status, patient quality of life, symptoms, and patient satisfaction. The data may be collected from providers, health carriers, and individuals, and it must be collected in such a way as to permit comparisons between health care providers.[18] It will be collected for a particular condition until researchers and providers impacted by the data have had sufficient time to adequately analyze the data and to monitor changes in practice patterns.[15] The commissioner may require health care providers to furnish all patient health records, as well as mailing lists of patients who have consented to the release of data. Data collected that identify individuals are classified as private data. The Data Analysis Unit is required to code patient identifiers to prevent patient identification.[19] Release of private data to researchers is to be made using the coded patient identifiers.[17]

Other provisions in MinnesotaCare are designed to improve the functioning of the health care market through increased consumer awareness of the costs and quality of various health care services. Accordingly, the commissioner and the Data Analysis Unit are required to collect and analyze information from health care providers concerning quality of care, outcomes, provider experience, utilization, and costs.[20] The intent is to enable consumers and group purchasers to compare health care providers and services and, therefore, make informed decisions when purchasing health care services. After collecting the data, the commissioner, with assistance from the Data Analysis Unit, is authorized to "publish data on health care costs and spending, quality and outcomes, utilization for health care institutions, individual health care professionals, and groups of health care professionals."[21] The commissioner, however, may not reveal the name of an institution, individual health care professional, or group until the subject has had 15 days to review the data and comment. The provider's comments must be included with the data when it's released.

Because the commissioner is required or permitted to request a wide range of financial and patient-care data, compliance with the data collection requirements may appear burdensome for health care providers and other participants in the health care system. However, MinnesotaCare, contains numerous provisions to minimize the burden. These provisions include explicit directives that data collection efforts must be "structured to minimize the administrative burden on ... health care providers"[22] and must not "unduly burden" providers.[23] MinnesotaCare also forms a Data Collection Advisory Committee to formulate methods of data collection that minimize administrative burdens.[24] In addition, existing data bases must be utilized where possible,[25] and data collection efforts must be conducted according to a plan, with standardized forms and procedures and in coordination with other data collection efforts.[26]

Although a data request may appear burdensome, health care providers should promptly respond to data collection requests from the commissioner and entities established to assist the commissioner. Intentional failure to comply with a request for data can result in revocation of the health care provider's license or imposition of a fine.[27]

Current Data Collection Efforts

The Department of Health has already begun the process of collecting data. Currently, the department is preparing a form for collecting demographic, expense, and revenue data from health care providers for July 1 through December 31, 1993. To let providers know what information will be collected, a draft of the form was sent to the approximately 700 clinics that will be required to provide data for 1993. Providers required to submit demographic, revenue, and expense data must complete and return the form by February 15, 1994. Similar information will be required from all health care providers on an annual basis thereafter.[28]

The final form will likely require providers to identify demographic data, such as:

- the nature of the practice;
- the names and specialties of providers furnishing services at the clinic; and
- the number of full-time equivalent personnel by position.

Revenue data requested in the current draft form include:

- total operating revenue;
- net receipts for patients and number of patients seen broken down by state of residence and by payer (e.g., Medicare, Medical and General Assistance, commercial insurers, HMOs); and
- other sources of operating revenue (e.g., funds from research, donations, grants, subsidies, and contractual agreements).

Expense data that likely will be required include:

- total operating expenses;
- direct patient care expenses (e.g., salaries, wages, and benefits for health care professionals; purchased services; and malpractice insurance);
- operating/administrative expenses (e.g., billing, marketing, general administration, mandated government and internal reporting, patient registration, research and education, professional association membership, and utilization review/regulatory compliance); and
- bad debt.

Revenue and expense data collected by the commissioner, as well as quality, utilization, and outcomes data collected pursuant to Minn. Stat. §§ 62J.37, 62J.38, 62J.41, or 62J.42, are "private" if the subject of the data is a person and are "nonpublic" for all other entities.[29] Private and nonpublic data are generally accessible only to the data subjects and to government officials whose duties require access.[30] Generally, private data may only be used or disseminated for the purpose for which the commissioner collected it, unless the commissioner specifically finds that a new use or dissemination of the data is necessary to carry out a function assigned by law.[31] If the commissioner releases data, it must be released only in a form "that does not identify specific patients, providers, ... or other specific individuals and organizations, except with the permission of the affected individual or organization," or as permitted by other provisions in MinnesotaCare relating to data initiatives.[29]

Conclusion

MinnesotaCare's comprehensive plan for health care reform will be implemented on the basis of data collected from nearly every participant in the health care industry. Health care providers will be called upon to provide a wide range of data. Although it is too early to determine how much of a burden this will impose on health care providers, the Legislature has taken steps to minimize that burden as much as possible. MM

Elizabeth Wright is an attorney with Dorsey & Whitney in Minneapolis.

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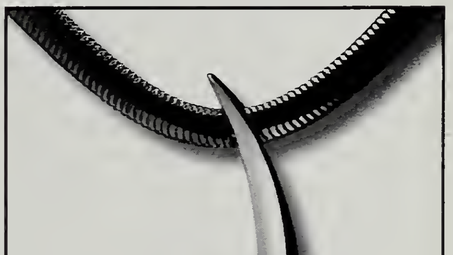
2. Minn. Stat. § 62J.45, subd. 6.
3. Minn. Stat. § 62J.45, subd. 11(a), (c).
4. Minn. Stat. § 62J.45, subd. 3.
5. Minn. Stat. § 62J.45, subd. 5.
6. Minn. Stat. §§ 62J.30-62J.34; 62J.45, subd. 11(b).
7. Minn. Stat. § 62J.33, subd. 2.
8. Minn. Stat. § 62J.04, subd. 1(a).
9. Minn. Stat. § 62P.05, subd. 2.
10. Official Notice of limit on the rate of growth of health care expenditures for calendar year 1994. Minnesota State Register 1993;17(51):3383.
11. Minn. Stat. § 62J.04, subd. 2; Minn. Stat. § 62J.41; Minn. Stat. § 62P.05, subd. 4.
12. Minn. Stat. §§ 62J.32, 62J.34.
13. Minn. Stat. § 62J.33.
14. Minn. Stat. § 62J.15.
15. Minn. Stat. § 62J.31, subd. 4.
16. Minn. Stat. § 62J.32, subd. 2.
17. Minn. Stat. § 62J.30, subd. 7.
18. Minn. Stat. § 62J.31, subds. 1-3.
19. Minn. Stat. § 62J.3, subd. 6.
20. Minn. Stat. §§ 62J.33, subd. 1; 62J.42.
21. Minn. Stat. § 62J.44.
22. Minn. Stat. § 62J.30, subd. 4.
23. Minn. Stat. § 62J.30, subd. 6.
24. Minn. Stat. § 62J.30, subd. 8(a).
25. Minn. Stat. § 62J.31, subd. 5.
26. Minn. Stat. § 62J.45, subds. 3-5,15.
27. Minn. Stat. § 62J.04, subd. 2a; Minn. Stat. § 214.16, subd. 3.
28. Minn. Stat. § 62J.41, subd. 1-2.
29. Minn. Stat. § 62J.04, subd. 2(b).
30. Minn. Stat. § 13.02, subd. 9, 12.
31. Minn. Stat. § 13.05, subd. 4.



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Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

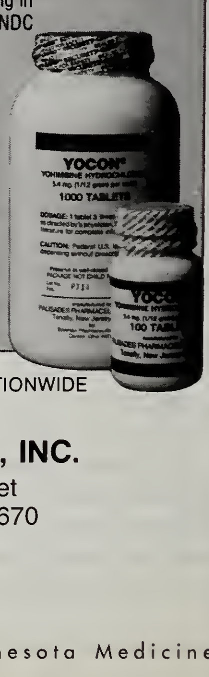
Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:
1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



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Injury in the Medical Workplace

Educating Employees to Prevent Back Injury, Stress, and Slips and Falls

Bob Sturdevant

New employee orientation is critical in educating employees about their work environment. Although the fast pace of medical offices may not allow for a completely relaxed orientation, a well-developed checklist can guarantee that important issues such as employee safety are not omitted. Medical clinics typically take measures to prevent cuts and punctures from needles and sharp objects, but education related to less common injuries is sometimes overlooked. Many workers' compensation claims can be prevented with a few commonsense steps and education to prevent back injury, stress, and slips and falls.

Avoiding Back Injury

Ask any person on the street to name occupations that produce back injuries, and the person most likely would name jobs that require physical labor. Naturally, the risk for back injury is high in labor-intensive industries, but statistics show that unsafe lifting and handling of objects in *any* work environment can result in serious back injury.

Consider what occurs daily in a medical practice. A package of medical supplies is delivered and needs to be carried to the supply room. Three boxes of files need to be relocated to the office down the hall. Mr. Jones, the portly man with an injured leg, needs assistance getting up onto the examination table.

The potential for back injury exists with these and other typical, usually harmless, situations. Educating staff about proper lifting techniques is crucial in preventing workers' compensation claims from back injury.

"Safe lifting" means keeping the back aligned—keeping the ears, shoulders, and hips in a straight line. If possible, objects should be held close to the body while lifting, maintaining a center of balance and letting the strong leg muscles do the actual lifting. Bending at the waist and extending the upper body to lift an object upsets the back's alignment and the center of balance. This forces the spine to support not only the body's weight, but also the weight of the object being lifted. The sidebar on page 40 offers suggestions for lifting various types and sizes of objects.

> "Unsafe lifting and handling of objects in any work environment can result in serious back injury."

Before lifting anything, always ask: "Can I lift this object or this patient alone, or do I need help?" If the object or person is too big or the lift would be awkward for one person, get help. The extra minutes spent getting assistance may prevent a painful and costly back injury.

Heavy boxes of supplies or files should be moved using a two-wheel hand truck. If your practice doesn't have one, consider purchasing this piece of equipment. A hand truck is a good investment for any office. New models are lightweight yet sturdy, and some fold and collapse for easy storage next to a desk or in a closet. Choose a model and style based on your practice's needs. It should be adequate for the particular transporting and carrying done in your office, but it should not be too cumbersome or heavy. The money spent on this handy piece of equipment will be returned time and again. If it prevents just one back injury, it will have paid for itself handsomely.

Preventing Stress-Related Work Claims

It's Monday morning and you're entangled in a mile-long traffic jam. The traffic reporter on the radio says you're not going anywhere for about an hour. Surveying the scene, you realize that every minute you sit there puts you further behind in an already hectic schedule.

If you can relax and make the best of this situation, you're way ahead of most Americans in managing stress. A management newsletter recently reported that eight of 10 American workers are "headed for collapse." Forty percent of 1,300 workers surveyed by an insurance company said they frequently experience anxiety, anger, fatigue, or exhaustion.

Another recent study estimates that absenteeism, compensation claims, and medical expenses caused by stress-related diseases like heart attacks, ulcers, and high blood pressure cost the U.S. economy $200 billion a year.

Stress drains productivity, profits

When stressful situations are left unchecked in the workplace, job performance can suffer. Productivity decreases; accidents and employee illness may increase, along with alcohol and drug abuse, employee turnover, employee theft, and even sabotage.

Profits can suffer, too. If stress-producing situations are not defused

Safe Lifting Techniques

Easy-to-reach objects, weighing less than 25 pounds

1. Stand close to the load with your feet apart for proper balance.
2. Bend your knees, keeping your back as straight as you can.
3. Get a good grip. Many lifting accidents occur because the object slips from the hands.
4. Lift smoothly and not too quickly, straightening your knees until you're standing erect. Use your leg muscles rather than your back because they are stronger.
5. Avoid twisting your body while lifting. If you must change direction, do so by moving one foot at a time and then turning with your leg muscles.
6. Be sure the load is secure and will not fall, tip over, roll off, or get in someone's way.
7. If the object weighs more than 25 pounds, use mechanical help.

Long objects that are relatively light

1. Don't hug the load close to your body.
2. Support the object on your shoulder, keeping its front end higher than the rear.

Long or heavy objects requiring two people

1. Each person should shoulder the object on the same side.
2. Keep the object level.
3. Keep in step while walking.

Hard-to-reach objects

1. If the object is above shoulder height, use a step stool or ladder.
2. If the object is on a shelf, test its weight. If 25 pounds or less, slide it toward you and hug it close to your body as you descend the ladder or step stool.
3. If possible, hand the object down to a waiting coworker.
4. If more than 25 pounds, use mechanical help.

Reaching into a bin or container

1. Stand with your feet at shoulder distance apart.
2. Bend your knees slightly and start to squat, bending at your hip joints, not at your waist.
3. Slide the object as close to your body as possible and raise yourself using leg and hip muscles.
4. Tighten abdominal muscles as you lift.
5. If possible, rest your knees against the side of the container for additional support.

early on, they can escalate into costly workers' compensation claims and possibly lead to higher insurance premiums.

Communication is top priority in claim prevention

Work-related stress can be the result of several factors, including poor communication, having responsibility without authority, improper training, a negative work environment, and interpersonal conflicts (see the stress quiz on page 41). To successfully reduce or eliminate potential stressful situations within a practice, supervisors and managers must be aware of and familiar with the office environment. Communication among staff members is essential in preventing work-related stress. It's not always easy; time constraints force us to assume things are running smoothly and that employees know what is expected of them in their jobs. It's important to ask questions, offer clear explanations, and listen objectively to staff concerns and suggestions.

Following are other actions that can reduce the occurrence of stressful situations and potential workers' compensation claims in your practice:

- Identify the conditions causing stress. Ask staff members to evaluate the duties they perform daily and the effect the office environment has on their ability to meet stated job expectations.
- Reduce the stress level in the work environment. Put employee suggestions into play. Involve employees in the redesign of jobs or responsibilities with the goal of eliminating stress. If possible, give them more control over their jobs.
- Provide proper training. Make sure the staff is thoroughly trained in equipment operation and medical and office procedures. Supervisors should receive the necessary management skills training.
- Increase employees' ability to cope with stress. The better equipped employees are to deal with stressors, the more adept they become at identifying and defusing them. Classes or seminars on stress reduction or relaxation techniques are good ways to teach people effective coping mechanisms. When people have stress-related problems, they need someone to turn to for problem resolution before the situation gets out of control. If it's not possible to have someone within your practice mediate problems, employee assistance programs (EAPs) are excellent resources; they are confidential, outside the workplace, and are staffed with trained counselors who listen impartially and can offer guidance.
- Treat employees with respect. Employers set the example of how staff members should treat one another. Show your staff members that you value their work. Encourage them to do the same with one another. A cooperative environment breeds success, professionalism, and respect—attitudes conveyed to and appreciated by patients.

Stress-producing situations in the workplace cannot be ignored, for

Stress Quiz

The following quiz can help you determine if work is wearing you too thin. If you disagree with the statement, give yourself one point. If you agree somewhat, two points. If you strongly agree, three points.

	Disagree	Somewhat agree	Strongly agree
I can't say what I really think at work.	☐	☐	☐
I have a lot of responsibility but not much authority.	☐	☐	☐
I could do a much better job if I had more time.	☐	☐	☐
I seldom receive acknowledgment or appreciation.	☐	☐	☐
I'm not proud of, or satisfied with, my job.	☐	☐	☐
I'm picked on or discriminated against at work.	☐	☐	☐
My workplace is not particularly pleasant or safe.	☐	☐	☐
My job interferes with my family obligations and personal needs.	☐	☐	☐
I tend to argue often with superiors, coworkers, or customers.	☐	☐	☐
I feel I have little control over my life at work.	☐	☐	☐

Scores:
10-16: you handle job stress well
17-23: you handle job stress moderately well
24-30: you need to resolve your problems

Source: American Stress Institute

they seldom go away on their own. If a stressful situation or circumstance develops, act immediately. If not, you could lose a valuable employee and gain a costly workers' compensation claim.

Defending Against Slips and Falls

According to the National Safety Council, more people died from falls at work in 1991 than from any other non-vehicle related cause. Preventing slips and falls takes common sense. The following simple reminders can reduce the possibility of fall-related accidents and injuries within your practice:

- Walk, don't run. Walking will reduce the risk knocking into someone or something, possibly causing injury.
- Open and close doors carefully. Someone may be on the other side.
- Clean up spilled liquids immediately.
- Replace burned-out light bulbs.
- Keep unsecured electrical cords out of walkways.
- Don't leave wastebaskets, boxes, files, or personal belongings where someone might trip over them.
- Hold onto handrails on stairs and escalators.
- Avoid tilting back so far in a chair that it tips over.
- If a chair has wheels, stabilize it before sitting down.
- Report loose carpet or tiles immediately so repairs can be made.
- Don't read while walking.

Conclusion

Work-related injuries can directly affect your practice's expenses and profits. Accidents and injuries can lead to decreased office efficiency, higher insurance premiums, and, even worse, the loss of valuable employees.

Workplace safety doesn't just happen. Employers must make a serious commitment to actively maintain a hazard-free work environment, to instill in employees the importance of office safety, and to motivate employees to work safely. MM

Bob Sturdevant is loss control manager with the Dodson Group, the endorsed carrier of workers' compensation insurance for the Minnesota Medical Association.

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Burton I. Abramson, M.D.
University of Minnesota, 1956
Born: 1931, Died: May 22, 1993

❧

Jeffrey L. Alexander, M.D.
University of Illinois, 1970
Born: 1944, Died: Feb. 20, 1993

❧

Thomas M. Altemeier, M.D.
University of Iowa, 1971
Born: 1945, Died: July 15, 1993

❧

Chester A. Anderson, M.D.
Temple University, 1949
Born: 1919, Died: May 23, 1993

❧

Alex Barno, M.D.
University of Oklahoma, 1944
Born: 1918, Died: Apr. 18, 1993

❧

Earle L. Bennett, M.D.
University of Minnesota, 1969
Born: 1942, Died: June 27, 1993

❧

John K. Butler, M.D.
University of Minnesota, 1937
Born: 1907, Died: Feb. 21, 1993

❧

Ray F. Cochrane, M.D.
University of Minnesota, 1937
Born: 1904, Died: June 20, 1993

❧

Ralph J. Eckman, M.D.
University of Minnesota, 1933
Born: 1906, Died: July 5, 1993

❧

William S. Eisenstadt, M.D.
University of Minnesota, 1939
Born: 1915, Died: Apr. 13, 1993

❧

George F. Engstrom, M.D.
University of Minnesota, 1927
Born: 1903, Died: Dec. 10, 1992

❧

John B. Erich, M.D.
University of Illinois, 1932
Born: 1907, Died: May 9, 1993

❧

Alvin O. Erickson, M.D.
University of Minnesota, 1935
Born: 1905, Died: Apr. 10, 1993

❧

Carl M. Gambill, M.D.
University of Louisville, 1931
Born: 1905, Died: Mar. 27, 1993

❧

Royal C. Gray, M.D.
University of Minnesota, 1924
Born: 1897, Died: Apr. 3, 1993

❧

Llewelyn P. Howell, M.D.
University of Chicago, 1931
Born: 1904, Died: Feb. 2, 1993

❧

Herbert W. Jones, M.D.
Harvard Medical School, 1937
Born: 1910, Died: June 1, 1993

❧

James A. Kaufman, M.D.
University of Iowa, 1962
Born: 1936, Died: Aug. 2, 1993

❧

Paul J. Keith, M.D.
University of Minnesota, 1949
Born: 1924, Died: Apr. 21, 1993

❧

George C. Kimmel, M.D.
University of Minnesota, 1937
Born: 1910, Died: May 15, 1993

❧

Robert G. Konicek, M.D.
University of Wisconsin, 1951
Born: 1925, Died: May 18, 1993

❧

Rudolph W. Koucky, M.D.
University of Buffalo-NY, 1929
Born: 1904, Died: Feb. 15, 1993

❧

Donald R. Lannin, M.D.
University of Minnesota, 1941
Born: 1914, Died: July 15, 1993

❧

Richard M. Leick, M.D.
University of Minnesota, 1936
Born: 1908, Died: Feb. 16, 1993

❧

Charles B. Lundquist, M.D.
University of Minnesota, 1959
Born: 1930, Died: July 13, 1993

❧

Maurice E. Mosby, M.D.
University of Minnesota, 1928
Born: 1905, Died: Apr. 2, 1993

❧

John E. Mulvahill, M.D.
University of Minnesota, 1957
Born: 1924, Died: Aug. 5, 1993

❧

O.L. Norman Nelson, M.D.
University of Minnesota, 1937
Born: 1909, Died: Aug. 9, 1993

❧

Willard F. Nordman, M.D.
University of Minnesota, 1930
Born: 1902, Died: Mar. 8, 1993

❧

William A. O'Brien, M.D.
University of Minnesota, 1946
Born: 1921, Died: June 14, 1993

❧

Duane C. Olson, M.D.
University of Minnesota, 1938
Born: 1914, Died: Feb. 21, 1993

❧

Edward N. Peterson, M.D.
University of Minnesota, 1925
Born: 1900, Died: Mar. 11, 1993

❧

John R. Ragan, M.D.
University of Minnesota, 1970
Born: 1943, Died: May 9, 1993

❧

Matthew J. Rimas, M.D.
Bayern, Germany, 1949
Born: 1924, Died: May 15, 1993

❧

Frederick L. Schade, M.D.
University of Minnesota, 1935
Born: 1904, Died: May 6, 1993

❧

Anthony A. Schmitz, M.D.
University of Minnesota, 1938
Born: 1913, Died: Mar. 1, 1993

❧

Forrest B. Spieler, M.D.
University of Nebraska, 1935
Born: 1910, Died: Jan. 29, 1993

❧

Donald J. Van Ryzen, M.D.
University of Minnesota, 1944
Born: 1918, Died: Feb. 19, 1993

❧

Ragnvald S. Ylvisaker, M.D.
University of Minnesota, 1927
Born: 1898, Died: Aug. 3, 1993

Health Care Reform

Physicians and Medical Societies Must Lead the Way

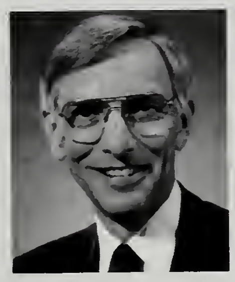
A. Stuart Hanson, M.D.

This will be my last President's Letter. For those of you who have read my letters, I thank you for your time and attention. This has been an interesting and active year for me and for the Minnesota Medical Association.

The MMA Annual Meeting last September came on the heels of a tumultuous 1992 legislative session that passed what may become the most significant social legislation of our lifetime. HealthRight, now called MinnesotaCare, set the direction for fundamental change in health care availability, financing, and public control. Years from now, 1992 may be considered a watershed year for health care.

A year ago, three major themes were the driving force behind the public consensus that health care needed major reform. First, basic health care services were not accessible to everyone needing them. Second, comprehensive health care services were not affordable, with cost escalations reaching twice the rate of general inflation. Finally, the health care delivery system was not adequately accountable for the resources being used, and purchasers of care wanted better measures of health care quality, efficiency, and effectiveness.

During the past year, I have discussed health care reform issues with physicians throughout the state and with other interested groups. I have sought to understand others' views before offering my own views of what might be in store for physicians as the health care system evolves. We each have our own view of the elephant, and our individual perspectives are related to our background and experience. What we are learning is that the elephant is moving. Its direction can be nudged, but no one can totally control it.



"It is critical that physicians sit at tables where health care reform decisions are made."

Although the issues are numerous, I wish to highlight the four that I believe will have the greatest effect on our profession. First, the development of integrated service networks (ISNs) will profoundly affect physician integration into systems of health care delivery. Second, state and federal regulatory boards and agencies will most likely exert more direction. Third, expanding health care access through MinnesotaCare and Medicaid will increase the volume of patients, while a provider tax may reduce financial margins, unless it can be passed on to payers. And finally, the new Data Institute will attempt to create a comprehensive new data source to meet all parties' needs for performance accountability (see this month's feature story, page 14, and Medicine Law and Policy article, page 35). System-wide, institutional, health plan, and provider-specific performance data will be collected. The challenge will be to use the data for education and improvement rather than for sanctions and punishment, as well as to meet the various data demands while preserving appropriate confidentiality.

What does all this mean for physicians? Autonomy is not necessarily being lost, but interdependence is being realized. "Systemness" is moving forward. Health care systems will be more comprehensive and will require more coordination, cooperation, and inclusiveness. In order to achieve optimal efficiency and effectiveness in the new systems of care, I believe that exclusivity, win-lose competition, and exploitation will inhibit our ability to achieve the desired results of increased access with more affordability and accountability.

In an environment of health system reform, what is the place for organized medicine, now and in the future? I believe that broad-based, formal physician participation in public-policy development is essential. We also have legitimate and essential roles in any peer-review process. We must be leaders in community service and in current public health issues, such as AIDS; domestic violence; vehicle safety; sexual practice; and tobacco, alcohol, and drug abuse. In addition, some physicians need special services, such as insurance, practice management assistance, and consultation, all of which medical societies can bring together.

If we need multispecialty professional associations, how should they be organized to meet current and future needs of the profession? Hospital and medical group staff organizations need to be strong. Regional, multi-county medical societies need strengthening and staff support, especially with the regional coordinating boards authorized by MinnesotaCare assuming greater roles. The Minnesota Medical Association has more opportunity than ever to represent and educate physicians, and a great need exists for a strong, multispecialty, national medical association like the American Medical Association to represent physicians in the national debate on health care system reform.

Health care reform is proceeding in Minnesota and the nation. Physicians have a legitimate and critical role to play as we redesign our health care system, which currently is not as accessible, affordable, or accountable as desired. ISNs, increased regulation, expanded access to MinnesotaCare, and the new Data Institute all cause anxiety for physicians. Now is the time to strengthen our involvement in local, regional, state, and national multispecialty medical organizations. It is critical that physicians sit at tables where health care reform decisions are made—decisions that will likely affect the way health care is delivered for the next 50 years. **MM**

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People and Places Making Medical News

People

MMA Appointees to Data Institute

The Minnesota Medical Association Board of Trustees has appointed A. Stuart Hanson, M.D., of Minneapolis and Richard Dinter, M.D., of Hibbing to the newly formed Data Institute. The institute will established a centralized data system for public and private sector use. Donald Asp, M.D., of St. Paul and Michael Murray, M.D., of Rochester are alternates.

Distinguished Alumnus Award

Neil Nickerson, M.D., recently received the Case Western Reserve University Distinguished Alumnus Award. Nickerson, an internal medicine practitioner, graduated from the CWRU School of Medicine in 1943.

Nickerson, together with his brother and cousin, established the Lakeside Clinic (now known as the Fairmont Medical Clinic) in Minnesota in 1953. During the past 20 years, Nickerson has practiced in many foreign countries, such as Liberia, Kenya, Thailand, Uganda, and Papua New Guinea, as a volunteer with public health organizations, including Minnesota International Health Volunteers. Nickerson's latest trip was to China in 1991 as a Rotary International representative of the WHO/UNICEF Immunization Review Team.

St. Paul-Ramsey Trauma Services Director

St. Paul-Ramsey Medical Center named Michael D. McGonigal, M.D., director of trauma services. Before joining Ramsey, McGonigal created the PennSTAR Trauma Center in Philadelphia, Pennsylvania.

Ramsey Clinic Pediatrics Chair

Thomas F. Rolewicz, M.D., has rejoined Ramsey Clinic of St. Paul as chair of pediatrics. Rolewicz, who was on staff at the clinic for more than a decade until the mid-1980s, has practiced at Hennepin County Medical Center for the past seven years.

AmeriCares Medical Director

Doyt L. Conn, M.D., has been named medical director of a volunteer physicians program at AmeriCares, a non-profit humanitarian organization based in New Canaan, Connecticut. Conn is an internal medicine and rheumatology specialist at the Mayo Clinic in Rochester, Minnesota. As part-time medical director of AmeriCares' "Doctors to All Peoples" program, Conn will recruit volunteers, help develop and evaluate new projects, and conduct fund-raising efforts.

St. Anthony Villager of the Year

William Carr, M.D., recently was named Villager of the Year by the St. Anthony Chamber of Commerce and was honored as a WCCO Radio Good Neighbor. Carr, who retired from private practice in 1989, volunteers at the Women and Children's Center in Minneapolis, the Red Bird Mission Hospital in Kentucky, and the Indian Health Service Hospital in North Dakota. He also serves as volunteer public health officer in St. Anthony, Minnesota.

Volunteer Lifetime Achievement Award

The Brooklyn Center Rotary Club recently chose Duane Orn, M.D., to receive its Volunteer Lifetime Achievement Award. Orn has served as the Brooklyn Center community health officer for the past 15 years.

HCMC Administrator

John Bluford recently was named administrator of Hennepin County Medical Center in Minneapolis, after having served as the hospital's deputy administrator since 1984. Bluford will head the 3,500-member staff and hospital, while continuing to administer Metropolitan Health Plan, the state's first hospital-based, public sector health maintenance organization.

College of Surgeons Honorary Membership

Earl E. Bakken recently was awarded honorary membership in the International College of Surgeons. Bakken, co-founder of Fridley-based Medtronic, Inc., developed the first wearable, external, battery-powered transistorized pacemaker in 1957. In retirement, he has headed the board of directors for North Hawaii Community Hospital.

Garfinkel Found Guilty of Research Fraud

Barry Garfinkel, M.D., a University of Minnesota professor and renowned child psychiatrist, has been convicted in federal court for research fraud in a government-approved study of patients with obsessive-compulsive disorders.

A U.S. District Court jury in Minneapolis found Garfinkel guilty of five out of 23 counts of mail fraud and filing false statements with the Food and Drug Administration.

The charges against Garfinkel stemmed from a 1986-89 study of an antidepressant drug, Anafranil, that he was testing on people suffering from obsessive-compulsive behavior.

Places

MMA and HCMS Merge Business Subsidiaries

The Minnesota Medical Association and the Hennepin County Medical Society have agreed to merge their business subsidiaries. The new corporation, called Minnesota Medical Business Resources (MMBR), will be led by a management team with George Lohmer as chief executive and financial officer and Thomas Richards as president and chief operating officer. MMBR, based in the Twin Cities, plans to establish affiliate centers around the state. The company will provide business and professional products and services that help physicians effectively serve their patients.

Mayo Clinic, Two HMOs Receive Grant to Test CQI

The Mayo Clinic, HealthPartners, and Blue Plus have been awarded a $3.82 million federal grant to test continuous quality improvement (CQI) for its ability to improve delivery of preventive health care services.

The project's principal investigator, Leif Solberg, M.D., will test whether 22 clinics that use CQI obtain better results than 22 control clinics. Teams of staff members at the clinics testing the technique will try to find better methods of delivering health care services, monitor the effectiveness of suggested methods, and institute changes based on the findings. They will apply CQI to a variety of preventive health care services, including breast examinations, mammograms, Pap smears, smoking cessation, hypertension control, and high cholesterol identification and treatment.

HealthSpan to Manage Mille Lacs Facilities

Mille Lacs Health System has signed a three-year contract with HealthSpan Health Systems Corp. to provide management services for its hospital, nursing home, and clinics in Onamia and Isle, Minnesota. The contract will allow Mille Lacs Health System the opportunity to benefit from HealthSpan's rural health care management experience, said Fred Haack, administrator and chief executive officer of Mille Lacs Health System.

Mille Lacs Health System operates a clinic, a 28-bed hospital, and an 80-bed nursing home in Onamia and a clinic in Isle.

Center Opens Special Unit for Huntington Disease

The University Good Samaritan Center in Minneapolis recently opened a 25-bed special unit for Huntington disease, one of only six such units nationwide. The new unit, which is the only one of its kind in the upper Midwest, will use a variety of resources to develop specialized, multidisciplinary programs and services for patients suffering from Huntington disease, with emphasis on the physical and behavioral components of the disease.

HealthEast Hospital Completes $5 Million Renovation

HealthEast St. Joseph's Hospital of St. Paul has completed a $5 million renovation of its Maternity Care Center and Pediatric Unit. Additions include 16 single rooms for labor, delivery, and recovery that can accommodate fathers' overnight visits. The renovation also includes two surgery rooms, a Level II and healthy baby nursery, and a playroom.

East Range Clinics Begin Expansion

East Range Clinics, Ltd., has begun construction on a $1.6 million expansion and remodeling project that will include a two-story addition to its current facility in Virginia, Minnesota. The shell of the 5,300 square-foot addition is expected to be completed by the end of 1993. The addition's first floor, scheduled to open in July 1994, will include a family practice wing and allow for expanded minor surgery areas and clinic laboratories. Remodeling of the existing building will take place over several years. East Range officials say the clinic expects to increase its number of physicians by 20 during the next five years.

Socioeconomics

Congress Drops Minnesota's Request for ERISA Exemption

Minnesota and three other states have failed in their effort to get exemptions from the Employee Retirement and Income Security Act (ERISA)—the federal law that shields self-insured businesses from state regulation. U.S. Rep. Martin Sabo, D-Minnesota, had inserted a provision in President Clinton's deficit-reduction plan that would exempt Minnesota, but a congressional conference committee threw out the provision, as well as similar provisions for other states. The committee felt the provisions would doom the tax bill, said Sabo.

ERISA was designed to protect worker benefits. However, many states say ERISA's prohibition on state regulation of self-insured health plans prevents them from trying new ways to reform health care. Minnesota wanted a two-year waiver to allow health providers to pass on a 2 percent provider tax to ERISA-protected groups and to collect data from self-insured plans—a move that would affect nearly 60 percent of Minnesota businesses, according to most estimates.

Although state officials have said they wanted the waiver to save the state the expense of defending

MinnesotaCare legislation in court, a dozen labor unions already have filed a suit that challenges the state's authority to pass on the 2 percent provider tax.

Many Minnesota businesses have opposed the state's attempts to seek ERISA exemption, including 3M, Honeywell, and General Mills.

Aspen Medical Group and Blue Cross Forming ISN

Aspen Medical Group and Blue Cross and Blue Shield of Minnesota have formed an alliance to jointly develop an integrated service network, according to officials from both health care organizations.

The arrangement, which provides the framework for an ISN, closely aligns Aspen and Blue Cross but does not prevent them from continuing existing partnerships or forming similar alliances with other groups. Earlier this summer, Blue Cross agreed to join forces with Park Nicollet and Methodist hospitals to form an ISN in a separate arrangement.

Orthopedic Practices Merge

Two Minneapolis medical groups, Orthopaedic Consultants, P.A., and Orthopaedic Associates, Ltd., recently merged their practices in an effort to "achieve significant cost containment and provide greater accessibility to the public," said John McMahon, M.D., president and chair of Orthopaedic Consultants.

The combined physician group will provide orthopedic services from 19 offices in and around the Twin Cities metropolitan area.

Women Physicians More Likely to Screen Female Patients for Cancer

Female physicians are almost twice as likely as male physicians to screen women for breast and cervical cancer, according to a report by a team of Minnesota researchers published in the August 11 *New England Journal of Medicine.*

The director of the study, Nicole Lurie, M.D., M.P.H., said that research on 97,962 women insured by Medica indicated that male physicians in family practice or internal medicine were about half as likely as female doctors to order tests recommended by the American Cancer Society. Lurie, a Hennepin County Medical Center researcher and internist, led a six-person team that examined the records of women aged 18 to 75 who saw physicians during 1990.

The study also found that obstetrician/gynecologists—both male and female—were more likely than doctors in other specialties to order screening tests. Young male doctors were the least likely to order screening tests.

Lurie cited a number of factors that may contribute to the disparities. She said that many women feel uncomfortable undergoing intimate tests with a male physician. In addition, young male doctors may feel uneasy about performing the tests or examinations, but likely become more comfortable with such work as they grow older.

Innovations

3M Pharmaceuticals Introduces Breath-Activated Inhaler

3M Pharmaceuticals of St. Paul, Minnesota, has introduced a breath-activated pressurized inhaler that seeks to eliminate the coordination problem many people with asthma and chronic bronchitis encounter with aerosol metered-dose inhalers. The new inhaler, called the Maxair™ Autohaler™ (pirbuterol acetate inhalation aerosol), is the first product of its kind available in the United States.

The new inhaler automatically releases a puff of medication at the right point in the breathing cycle with no need to coordinate pressing on the inhaler canister with inhaling, as is required of traditional press-and-breathe inhalers.

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Medical Research

Drug Therapy Combats Hypertension

Treating mild hypertension with drug therapy in combination with lifestyle change is slightly more effective than treating it through lifestyle change alone, report University of Minnesota researchers in the August 11 *Journal of the American Medical Association.*

In the four-year Treatment of Mild Hypertension Study, researchers compared six treatments for men and women aged 45 to 69 diagnosed with mild, or stage 1, hypertension. Patients in all groups received intensive nutritional-hygienic interventions aimed at increasing physical activity and reducing weight, dietary sodium, and alcohol intake. Patients were then randomly assigned to a placebo group or to a group taking one of five drugs. Blood pressure reductions occurred in all six groups but were significantly greater for participants in the drug treatment groups.

Most Substance Abusers Get Help from Friends, Family

People who abuse alcohol or other drugs are five times more likely to get help from relatives or friends than from their physicians, according to a national survey by the Hazelden Foundation, based in Center City, Minnesota.

Almost 70 percent of the 736 recovering alcoholics and addicts who responded to the nationwide survey reported that they were inspired to stop abusing alcohol or other drugs after someone intervened. Nearly 85 percent said that the discussion was initiated by a family member or friend, and only about 17 percent said the conversation was initiated by a physician. In response, Hazelden has launched an information campaign to support physicians reaching out to patients who are substance abusers, as well as to help those patients who are concerned about a relative or friend with an alcohol or drug problem. MM

bone marrow assay.
Enalapril Maleate: There was no evidence of a tumorigenic effect when enalapril was administered for 106 weeks to rats at doses up to 90 mg/kg/day (150 times* the maximum daily human dose). Enalapril has also been administered for 94 weeks to male and female mice at doses up to 90 and 180 mg/kg/day, respectively, (150 and 300 times* the maximum daily dose for humans) and showed no evidence of carcinogenicity.

Neither enalapril maleate nor the active diacid was mutagenic in the Ames microbial mutagen test with or without metabolic activation. Enalapril was also negative in the following genotoxicity studies: rec-assay, reverse mutation assay with *E. coli*, sister chromatid exchange with cultured mammalian cells, and the micronucleus test with mice, as well as in an *in vivo* cytogenic study using mouse bone marrow.

There were no adverse effects on reproductive performance in male and female rats treated with 10 to 90 mg/kg/day of enalapril.
Hydrochlorothiazide: Two-year feeding studies in mice and rats conducted under the auspices of the National Toxicology Program (NTP) uncovered no evidence of a carcinogenic potential of hydrochlorothiazide in female mice (at doses of up to approximately 600 mg/kg/day) or in male and female rats (at doses of up to approximately 100 mg/kg/day). The NTP, however, found equivocal evidence for hepatocarcinogenicity in male mice.

Hydrochlorothiazide was not genotoxic *in vitro* in the Ames mutagenicity assay of *Salmonella typhimurium* strains TA 98, TA 100, TA 1535, TA 1537, and TA 1538 and in the Chinese Hamster Ovary (CHO) test for chromosomal aberrations, or *in vivo* in assays using mouse germinal cell chromosomes, Chinese hamster bone marrow chromosomes, and the *Drosophila* sex-linked recessive lethal trait gene. Positive test results were obtained only in the *in vitro* CHO Sister Chromatid Exchange (clastogenicity) and in the Mouse Lymphoma Cell (mutagenicity) assays, using concentrations of hydrochlorothiazide from 43 to 1300 μg/mL, and in the *Aspergillus nidulans* non-disjunction assay at an unspecified concentration.

Hydrochlorothiazide had no adverse effects on the fertility of mice and rats of either sex in studies wherein these species were exposed, via their diet, to doses of up to 100 and 4 mg/kg, respectively, prior to conception and throughout gestation.
Pregnancy; Pregnancy Categories C (first trimester) *and D* (second and third trimesters). See WARNINGS, *Pregnancy, Enalapril Maleate, Fetal/Neonatal Morbidity and Mortality.*
Nursing Mothers: Enalapril and enalaprilat are detected in human milk in trace amounts. Thiazides do appear in human milk. Because of the potential for serious reactions in nursing infants from either drug, a decision should be made whether to discontinue nursing or to discontinue VASERETIC, taking into account the importance of the drug to the mother.
Pediatric Use: Safety and effectiveness in children have not been established.
ADVERSE REACTIONS: VASERETIC has been evaluated for safety in more than 1500 patients, including over 300 patients treated for one year or more. In clinical trials with VASERETIC no adverse experiences peculiar to this combination drug have been observed. Adverse experiences that have occurred, have been limited to those that have been previously reported with enalapril or hydrochlorothiazide.

The most frequent clinical adverse experiences in controlled trials were: dizziness (8.6 percent), headache (5.5 percent), fatigue (3.9 percent) and cough (3.5 percent). Adverse experiences occurring in greater than two percent of patients treated with VASERETIC in controlled clinical trials were: muscle cramps (2.7 percent), nausea (2.5 percent), asthenia (2.4 percent), orthostatic effects (2.3 percent), impotence (2.2 percent), and diarrhea (2.1 percent).

Clinical adverse experiences occurring in 0.5 to 2.0 percent of patients in controlled trials included: *Body As A Whole:* Syncope, chest pain, abdominal pain; *Cardiovascular:* Orthostatic hypotension, palpitation, tachycardia; *Digestive*: Vomiting, dyspepsia, constipation, flatulence, dry mouth; *Nervous/Psychiatric:* Insomnia, nervousness, paresthesia, somnolence, vertigo; *Skin:* Pruritus, rash; *Other*: Dyspnea, gout, back pain, arthralgia, diaphoresis, decreased libido, tinnitus, urinary tract infection.

Angioedema: Angioedema has been reported in patients receiving VASERETIC (0.6 percent). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis and/or larynx occurs, treatment with VASERETIC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In clinical trials, adverse effects relating to hypotension occurred as follows: hypotension (0.9 percent), orthostatic hypotension (1.5 percent), other orthostatic effects (2.3 percent). In addition syncope occurred in 1.3 percent of patients. (See WARNINGS.)

Cough: See PRECAUTIONS, *Cough*.
Clinical Laboratory Test Findings; Serum Electrolytes: See PRECAUTIONS.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.6 percent of patients with essential hypertension treated with VASERETIC. More marked increases have been reported in other enalapril experience. Increases are more likely to occur in patients with renal artery stenosis. (See PRECAUTIONS.)

Serum Uric Acid, Glucose, Magnesium, and Calcium: See PRECAUTIONS.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g percent and 1.0 vol percent, respectively) occur frequently in hypertensive patients treated with VASERETIC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1 percent of patients discontinued therapy due to anemia.

Liver Function Tests: Rarely, elevations of liver enzymes and/or serum bilirubin have occurred.
Other adverse reactions that have been reported with the individual components are listed below and, within each category, are in order of decreasing severity.

Enalapril Maleate—Enalapril has been evaluated for safety in more than 10,000 patients. In clinical trials adverse reactions which occurred with enalapril were also seen with VASERETIC. However, since enalapril has been marketed, the following adverse reactions have been reported: *Body As A Whole:* Anaphylactoid reactions (see PRECAUTIONS, *Hemodialysis Patients*); *Cardiovascular*: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances including atrial tachycardia and bradycardia; atrial fibrillation; hypotension; angina pectoris; *Digestive:* Ileus, pancreatitis, hepatic failure, hepatitis (hepatocellular [proven on rechallenge] or cholestatic jaundice), melena, anorexia, glossitis, stomatitis, dry mouth; *Hematologic:* Rare cases of neutropenia, thrombocytopenia and bone marrow depression, a few cases of hemolysis in patients with G-6-PD deficiency have been reported in which a causal relationship to enalapril cannot be excluded; *Nervous System/Psychiatric:* Depression, confusion, ataxia, peripheral neuropathy (e.g., paresthesia, dysesthesia); *Urogenital:* Renal failure, oliguria, renal dysfunction (see PRECAUTIONS), flank pain, gynecomastia; *Respiratory:* Pulmonary infiltrates, bronchospasm, pneumonia, bronchitis, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection; *Skin:* Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, alopecia, flushing, photosensitivity; *Special Senses:* Blurred vision, taste alteration, anosmia, conjunctivitis, dry eyes, tearing.

Miscellaneous: A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgia, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash and other dermatologic manifestations.

Fetal/Neonatal Morbidity and Mortality: See WARNINGS, *Pregnancy, Enalapril Maleate, Fetal/Neonatal Morbidity and Mortality.*

Hydrochlorothiazide—Body as a Whole: Weakness; *Digestive:* Pancreatitis, jaundice (intrahepatic cholestatic jaundice), sialadenitis, cramping, gastric irritation, anorexia; *Hematologic:* Aplastic anemia, agranulocytosis, leukopenia, hemolytic anemia, thrombocytopenia; *Hypersensitivity:* Purpura, photosensitivity, urticaria, necrotizing angiitis (vasculitis and cutaneous vasculitis), fever, respiratory distress including pneumonitis and pulmonary edema, anaphylactic reactions; *Musculoskeletal:* Muscle spasm; *Nervous System/Psychiatric:* Restlessness; *Renal:* Renal failure, renal dysfunction, interstitial nephritis (see WARNINGS); *Skin:* Erythema multiforme including Stevens-Johnson syndrome, exfoliative dermatitis including toxic epidermal necrolysis, alopecia; *Special Senses:* Transient blurred vision, xanthopsia.

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* Based on patient weight of 50 kg.

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NELMS

(continued from page 11)

element into the right opening, a child or parent can examine the bear's left ear. The bear teaches parents to recognize change in children's ears.

Nelms says he's learned "a different aspect of life" by switching hats from surgeon to businessman and has gained some valuable insight into the competitive retail world. He hopes to put this experience to use by marketing other EarBear products, like earplugs or ear drops. But most important is to get "physicians and parents working together on ear problems," he says.

The Hassle Factors

Nelms believes solutions to most of the problems he'll address as MMA president will be found through physicians and patients working together. Ask Nelms what kinds of problems practitioners face today, and he just laughs—it's a subject that could fill a book, he says. He shakes his head and mentions "all the hassle factors," such as unnecessary regulations, paperwork, and micromanagement.

"There's a wall put up between the physician and the patient," he says. "It wears you down, and you get distressed because patients are confused. Doctors are confused. You can get so disappointed."

Another problem Nelms hopes to address is the lack of continuity in the physician-patient relationship and the resulting alienation that can lead to liability conflicts. "Distrust between patients and physicians is growing because physicians never get to know their patients," he says. "You've got to know the patient. Then they'll trust you a lot more. These days some physicians practice in fear of messing up once and then being crucified. We're not all perfect. We try to do the best job we can."

Involvement in Organized Medicine

Nelms has long been an advocate of organized medicine as a vehicle for change. When he joined Otolaryngology & Head and Neck Surgery, P.A., in 1972, he says the practice already encouraged its physicians to get involved in the MMA and other medical societies. Throughout the past two decades, Nelms has been active in the Ramsey County Medical Society, serving as president in 1989. At the same time, he held important positions at St. Joseph's Hospital, where he was chief of staff from 1985 to 1987.

In recent years, Nelms has become active at the Minnesota Medical Association, working on the MMA Strategic Planning Task Force and the Council on Medical Practice and Planning from 1991 to 1992. He has been on the Board of Trustees since 1989, and this year he chaired the Non-ISN Task Force.

Many physicians find themselves too busy to get involved in organized medicine—with work, family, leisure, and professional education competing for time. But Nelms believes physicians must work in unison to solve their problems, especially considering the enormous health care changes coming.

"I love medicine, and I just hate to see people degrade our great profession. As physicians, we work hard. We work long hours, and we're dedicated. We just need to be organized. People try to splinter us between specialists and primary care and on and on, but we're all physicians. We need to have some type of base to function from. If we get too dispersed, we don't have a common goal."

As president, Nelms plans to stress the importance of putting a human face on health care while striving to achieve cost containment and consolidation. Huge, impersonal medical facilities may save money, he says, but if they can't provide patients with the opportunity to see a physician they know—a physician who doesn't treat them as a number—then they aren't much good in the long run.

This concerns Nelms both professionally and personally. "I'm going to get sick one of these days, and I want somebody who's compassionate to be taking care of *me*."

Nelms also believes physicians should strive for greater autonomy. "I remember when I went back to my 15th high school reunion with my wife. I got the prize for the only one who hadn't gone to work yet because I was still training. You'd figure that after training for 15 years, physicians could come out and practice. But we have other people telling us what to do, which doesn't make too much sense. It's up to us as professionals to police what we're doing. I don't think that physicians really need all this micromanagement."

As MinnesotaCare and other reform measures are implemented in the coming months, Nelms will have much to do. He can't wait. "I'm excited and looking forward to being president and to meeting a lot of people. I hope to be part of positive change and to convince more physicians to get involved." MM

Christian Fünfhausen is editorial assistant for Minnesota Medicine.

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Compulsive Gambling

When the Stakes Are Too High

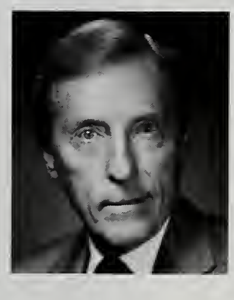
Edmund C. Burke, M.D.

As one who grew up during the bleak years of the Great Depression, I am astounded by the meteoric rise of gambling nationwide. Lotteries seem to be appearing everywhere, with new games, more prizes, and high-profile advertising campaigns. Casinos are opening, expanding, and building adjacent hotels and restaurants.

It's no wonder, then, that news reports have begun using the term "Las Vegasized" to describe the growing number of areas that are embracing casino gambling. I guess you could say Minnesotans are getting hooked—and that's the problem we examine in this month's cover story (page 10). While thousands of Minnesotans simply enjoy the thrill of gambling, for growing numbers it's not a game. About 1.5 percent of Minnesota's adults, or 48,000 to 50,000 people, are addicted to gambling, according to the state planning department.

Compulsive gambling is a high-stakes problem that can lead its victims to commit crimes to support the habit—or even to thoughts of suicide. Some physicians believe its physical manifestations and social consequences are similar to those seen among cocaine or alcohol addicts. Yet, as our feature story discusses, not everyone believes compulsive gambling is a medical problem; some consider it a character flaw or moral lapse.

In our review of the issue, we found that gambling has varied consequences—social, economic, and medical. Not only is it big entertainment, but big business as well:



> "Compulsive gambling is a high-stakes problem that can lead its victims to commit crimes or even to thoughts of suicide."

- Minnesota was the first state to offer Indian-operated gambling, which is now a $2 billion a year operation with 16 casinos statewide.
- Minnesota's gaming revenues are third highest in the United States, behind Nevada and New Jersey.
- Collectively, Minnesota's Indian casinos are the state's seventh-largest employer, with more than 10,000 employees, according to a study by the Minnesota Indian Gaming Association. To put that number in perspective, casinos employ more workers in the state than IBM Corp. and almost as many as Honeywell Inc.
- Casino payrolls in Minnesota have grown by 63 percent over the past year to $127 million.
- Casino gambling has even taken to the nation's waterways, especially along the Mississippi. Nine gambling boats operate in Iowa and Illinois, and five riverboats with dockside casinos cruise the river. Further downstream, Louisiana plans to issue 15 riverboat gambling licenses, as well as one for an enormous land-based casino resort in New Orleans.
- According to recent estimates from the state planning department, out-of-state visitors to Minnesota casinos have brought in about $245 million to the state's economy—revenue that has created 7,600 jobs.

But what's good for the state's economy may not be good for its residents, at least not all of them. Problem gambling has risen dramatically in Minnesota; four of the six state-funded treatment centers for compulsive gamblers are filled to capacity, with waiting lists. And state officials expect the problem to grow, as it has in other states where gambling has been around longer.

Although physicians, psychologists, treatment counselors, and others remain divided on the question of whether compulsive gambling is a mental illness, since 1980 pathological gambling has been listed as an impulse control disorder in the American Psychiatric Association's "Diagnostic and Statistical Manual," 3rd edition. Medical illness or not, compulsive gambling can cause serious emotional, psychological, and even physical problems. And that's where physicians come in. The odds are good we can expect to see more patients with physical and psychological complaints related to gambling. We need to be aware of the problem, to ask the right questions, and to make appropriate referrals (for a list of available resources, see page 15). Like other patients with addictions, compulsive gamblers may hesitate to reveal their problem, so physicians should watch for signs of stress or depression or signs that the patient is preoccupied with unexplained financial problems. Whatever our feelings about gambling, we should be ready to intervene when a patient gets hooked on Lady Luck. MM

Business Prescription

Can Winston Wallin Cure 'U' Health Sciences' Ills?

By Thomas Allen

At his old job as chief executive officer of Medtronic, Inc., Winston Wallin helped shape the lives of many patients through his company's pacemakers and other medical devices. At his new job, he plans to help shape the future of medicine and medical research in Minnesota.

Wallin, 67, has emerged from semi-retirement to take on a challenging new role as special adviser to Nils Hasselmo, president of the University of Minnesota. Wallin's task: restructure and revitalize the university's beleaguered health sciences.

A draft of Wallin's plan, presented for initial reactions to the university's Board of Regents last month, clearly shows the hand of a businessman at work. The plan calls for a separate health sciences center and a more clearly defined chain of command throughout. The health sciences would be run by a provost reporting directly to the president of the university. "The provost would be like the CEO of a major subsidiary of a company," Wallin says.

Other recommendations include creating a position of chief financial officer, strengthening the role of the medical school dean, and establishing a closer relationship between the University of Minnesota Hospital and Clinic and its medical staff.

The aim is to put some muscle into the sagging management structure that has left the health sciences with no clear line of authority. "We're trying to put in place a structure that fixes responsibility and gives people the required authority to run the place," Wallin says. "Get the goals and the objectives and the rules you have to play by straight, then let people run their own show. And they are responsible for the results."

Business Acumen

Wallin first learned the art of business at the University of Minnesota, where he graduated with a degree in business administration in 1948. After graduating, he joined the Pillsbury Company as a wheat buyer. Wallin worked his way up through the ranks and became president and chief operating officer of Pillsbury in 1977 and vice chair of the board in 1984.

In 1985, he moved to Medtronic, Inc., a leading developer and manufacturer of therapeutic medical devices. As president and chief executive officer, Wallin tripled revenues by expanding the company's product line and strengthening its pacemaker business. He retired from Medtronic in September 1991 but remains chair of its board. In addition, Wallin chairs the board of Carleton College and the fundraising board for the university's Cancer Center. He also serves on a number of other boards, including Super Valu Stores, Inc., Cargill, Inc., the Minneapolis Institute of Arts, and the Minnesota Zoo.

Free Advice on Overhauling Programs

Wallin's business prowess apparently convinced Hasselmo that Wallin is right for the job of restructuring the university's health sciences. "I've run some large organizations with a certain amount of success," Wallin says. "And [Hasselmo] seemed to think that I could help the university."

After two months of discussion, Wallin agreed to assume the task because he believes the university is one of the most important institutions in Minnesota. "I try to spend my life doing things that are worthwhile," Wallin says. "I think that what I'm involved in is important. Well over half the doctors in the state have been educated at the University. It has spawned many, many companies, including Medtronic. If something happens to the university that threatens the medical school *that* threatens research—which means

PHOTOGRAPH COURTESY OF MEDTRONIC, INC.

> "We're trying to put in place a structure that fixes responsibility and gives people the required authority to run the place."
>
> –WINSTON WALLIN

Minnesota and this community are going to be big losers."

Originally, Hasselmo wanted Wallin to be a paid member of the university staff. But that didn't suit Wallin. After leading Pillsbury and Medtronic, he didn't want to go back to working for someone else. So despite holding a tough position at the university, Wallin prefers donating his time. "I wanted the freedom," he says. "I'm still working very hard, but I want to be able to do things as I want to do them."

As special adviser to the president, Wallin is responsible for the overall organization of the health sciences—the schools of medicine (in Minneapolis and Duluth), dentistry, nursing, and public health; the colleges of pharmacy and veterinary medicine; and the hospital and clinic. Two members of the university staff are working with Wallin in temporary positions during the restructuring. Richard Elzay, D.D.S., dean of the dental school, is serving as deputy vice president for health sciences. Shelley Chou, M.D., Ph.D., is the interim dean of the medical school and interim deputy vice president of medical affairs.

Although all three men hold interim positions, they are by no means caretakers—the emphasis is clearly on change. In September, after only a few months in their new roles, Wallin and his teammates presented their recommendations for an overhaul of the health sciences management structure. Those recommendations were well received by the regents and are expected to be approved at the regents' October meeting. "There is a sense of urgency to get some of these things done," Wallin says. "The recommendation is that we immediately start looking for a provost and filling other slots as well."

Structural Problems, Management Solutions

A combination of factors caused the problems plaguing the health sciences, according to Wallin, some of which may be attributed to the university itself, others to the changing health care market.

Structural problems within the university's health sciences resulted in poor oversight and ineffective management. "Over the years, it has kind of been everybody going their own way, with very little organization or leadership in the health sciences. Some of the people who have had difficulty doing their jobs just haven't had authority—there's been a lack of clearly defined authority and nobody running it," Wallin says. "If nobody's running it, and it goes

WALLIN continued on page 41

PERSPECTIVES

When One of 'Us' Has Cancer

By Peter J. Dorsen, M.D.

"When I discovered I had leukemia," said "Ray" matter-of-factly, "I cried for a week, and then I figured I had to get hold of myself, otherwise Lisa and the kids would have gone nuts."

ILLUSTRATION BY DARCY MYERS

As I sat opposite Ray, I could see how frail he had become. He said next month would be his 50th birthday—if he made it.

"I'm not sure I can continue," he said. "I was sicker than a dog with low blood counts until I finally went in for the bone marrow transplant. I've had to get platelet transfusions plus several units of blood almost every week. Luckily, I can get everything at home. I had a Hickman catheter after I went home from the hospital, but it got infected."

I could see the tape and gauze above his wrist. "Did you just have an IV in?" I asked.

"Yes, they took it out this morning," he replied.

When I had walked up to Ray's door an hour earlier, I had been relieved to see him through the window, still alive and sitting on the couch. I knew things had become desperate. I had seen his wife at the grocery store a week before, and she had told me his blood counts were extremely low. "Come visit him," she had said. "He would like that." Now sitting before Ray, I could see how profoundly his illness had affected him.

"Except for that first couple weeks," said Ray, "I haven't felt depressed. But if my counts don't pick up, I don't know what will happen. I don't know what I'll do. I've been septic. When my platelets are down, I ooze from my nose. It could all be over with one massive GI bleed. That time I was in the hospital, I had a small bleed into my head. I couldn't talk for a week."

"What about disability?" I asked, feeling more like a social worker than an internist-friend to one of my colleagues.

"No one wants to admit that a doctor can ever get sick, let alone die," Ray said. "I didn't even start my disability until last June. When my counts dropped faster than I expected, I ended up going in for my bone marrow transplant a month early. I didn't think I was going to make it if I waited any longer. The Mayo has done only four other marrow transplants on patients with this unusual condition. Three are dead. The problem is that the cells don't take very fast, if at all. They replanted the cells they had removed from me before they had started chemotherapy."

I wondered how they managed to find those hundreds of units of blood and platelets.

"Before they infused my stored cells last November," Ray said, "they had to remove my own bone marrow cells. They needed to stick me in the butt 140 times."

The pause that followed made me squirm for all the times I may have sentenced a patient to a painful procedure. The pain felt like my own. Here sat an invulnerable physician like me, saying he was going to die, and very likely before his 50th birthday—that is, if his plasmapheresed stem cells failed to "take." As a physician, Ray knew his options were running out. That they hadn't already was testimony to his courage and inner strength.

> "When I had walked up to Ray's door an hour earlier, I had been relieved to see him through the window, still alive and sitting on the couch."

Ray sat peacefully on his living room couch, a cautious six feet away from me. I wore the paper mask he had given me hooked around my ears. His diligence in protecting himself from any ailments I might be carrying explained why he had survived so long in an immunosuppressed state. I wondered if the mask successfully hid the painful emotions I felt as I sat witnessing Ray's powerlessness.

"You've got to have hope," I offered limply.

I thought to myself that I was lucky to sit face to face with Ray, even though I wanted very much to hug him and share my wellness with him. That would be impossible.

"It must get lonely," I thought aloud.

"Yes," he answered. "I wake up in the morning, and I come out here to work. Many times, if my counts are too low, I don't answer the door when the bell rings. My wife or kids do, and I go somewhere else in the house."

Ray walked over to the coffee table to show me a program from a concert the local symphony had given in his honor a few weeks earlier. The concert was the symphony's way of paying tribute to Ray's support over the years. He told me with sad pride how they had dedicated the program to him and how they had prepared a private isolation box, complete with his own entrance.

"Did they say anything about you at the performance?" I asked, unaware of his passionate desire for privacy.

"I wouldn't let them say anything. I'm not that kind of person."

He showed me a weaving he was doing. "This hobby is all I have enough energy for." It pained me to think he had run an eight-physician practice and had performed complex surgery for two decades.

Soon I knew it was time to go. I realized I had done what I needed to do—to say hello as much as to say goodbye. During my visit, I had embraced Ray as a friend, and in return, he offered the gift of power as a physician to face death, pain, even hopelessness. Thank you, Dr. Ray, I will come by again soon.

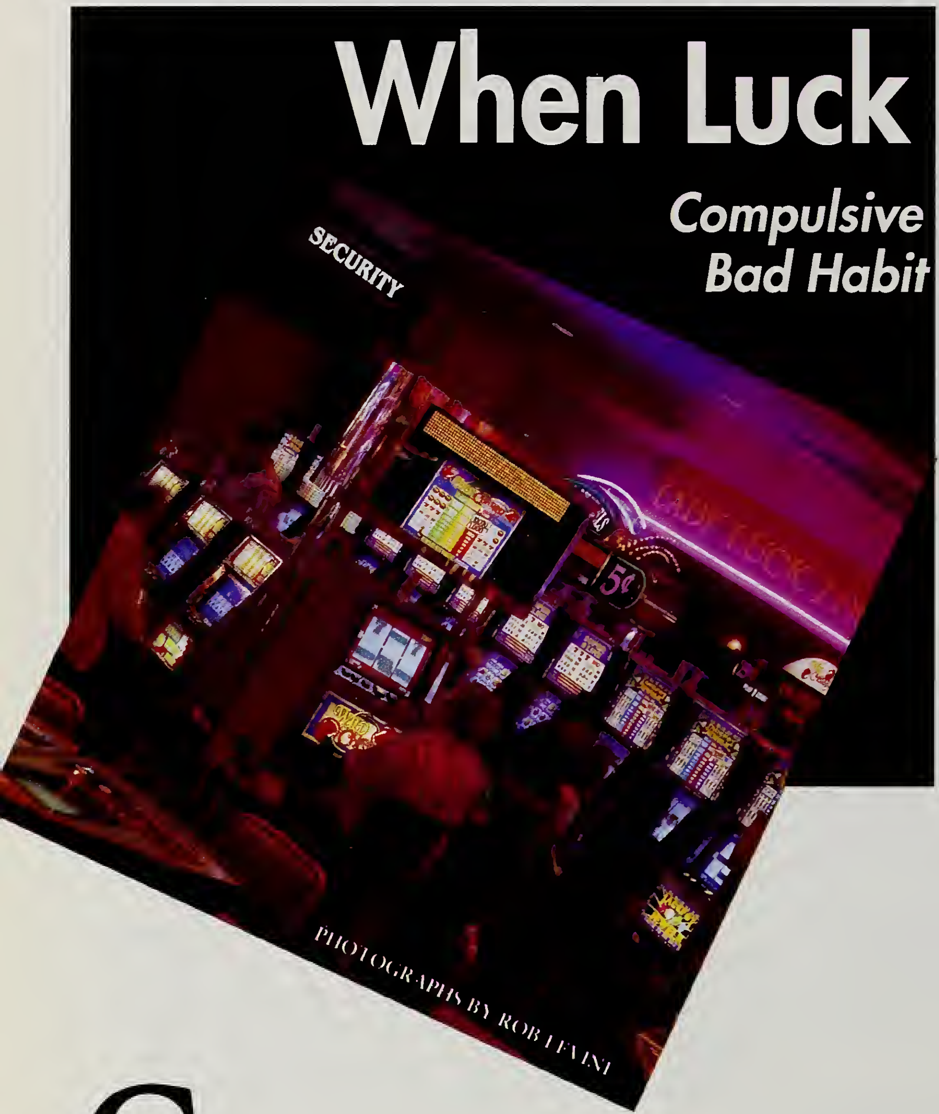
"Ray" died recently, and his family celebrated his medical and personal life with a private burial and a regal service filled with the joyous choral and baroque music he so cherished. MM

Peter Dorsen is a fellow in the American College of Sports Medicine. He is currently completing the book "Fitness in Men Over 40: A Survival Guide" (Stackpole Press). He supports his writing by working locum tenens and emergency jobs in outstate areas of Minnesota. He is also a sports medicine editor for Cross County Skier *magazine and a physician for the U.S. Ski Team.*

COVER STORY

When Luck Runs Out

Compulsive Gambling: Bad Habit or Serious Illness?



PHOTOGRAPHS BY ROB LEVINE

By Douglas Clement

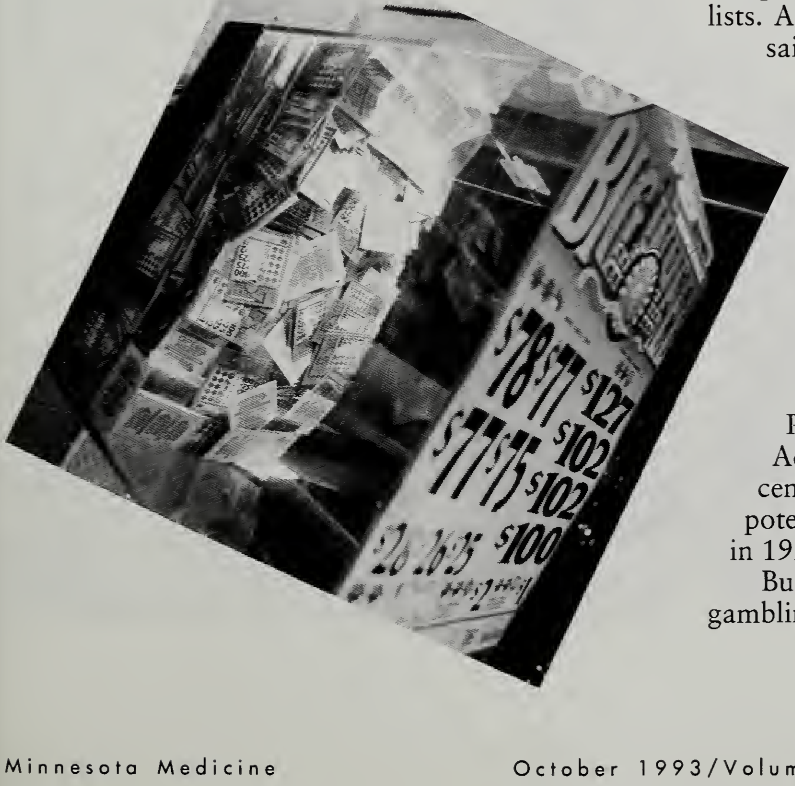
Six years ago, “Sam Brown” and his pals stopped for a drink at the Montevideo VFW after their weekly bowling game. One friend suggested they buy some pulltabs, and on his first try, Sam won $100. “Wow, that felt good!” he recalls. By 1990, that good feeling had nearly cost him his job, his family, and his life.

Sam's dalliance quickly became an obsession. "There were some days that I'd probably open $5,000 worth of pulltabs," he now recounts. He lied to his wife to hide the habit and stole from his job to support it. And in mid-1990, during the last two months of his gambling, Sam devoted virtually every dollar and every minute to pulltabs.

"Physically, I got so gambling was more important than anything. ... It got to the point where I wasn't eating. I went from about 175 pounds to 125 pounds. In 61 days, I had 60 hours of sleep. I ate three meals in two months. Had my wife not confronted me, had I not gone [for treatment], I would have continued to gamble, and I would have lost everything. I'd be dead."

Minnesota Gambling: Curse or Blessing?

These days, Sam Brown is very much alive, weighing in at 165 pounds, and gainfully employed as a peer counselor at the Vanguard Gambling Program, a Granite Falls gambling treatment center. He joins a small but growing industry in Minnesota that believes, for many individuals, gambling is not a simple recreation but a deadly habit, as addictive as cocaine, as destructive as alcohol. And curiously, it's a habit encouraged by forces as powerful as our churches, civic organizations, and local governments.



Does *this* sound like the Minnesota we know and love? You betcha! Minnesota has embraced gambling with open arms and wallets. From $200 million wagered in 1985, Minnesotans have increased betting to $1.6 billion in 1990, $2.5 billion in 1991, $3.6 billion in 1992, and perhaps as much as $5 billion this year.[1,2]

> "There is a pathology to gambling, a progression, a set of symptoms identifiable through early, middle, and late stages, as in any illness."
>
> –Michael Marcotte

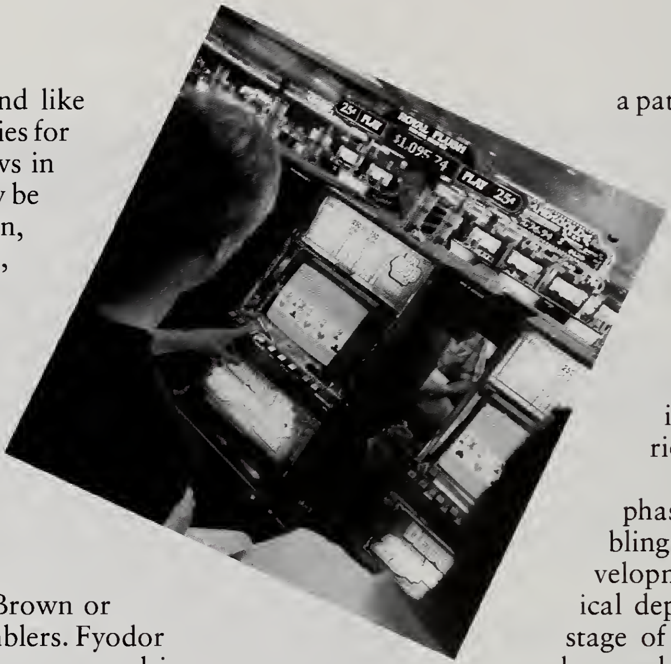
The benefits of gambling include revenue generation for social needs as varied as the environment, food shelves, homeless programs, and firefighters. The growth of Indian gaming has redistributed wealth toward some of our state's poorest people, creating thousands of jobs and moving hundreds of people off AFDC.

But the negative aspects of gambling are also considerable. First among them is the dramatic rise in problem gambling. Calls to the Minnesota Compulsive Gambling Hotline doubled during 1992, and four of the six state-funded treatment centers for compulsive gamblers are filled to capacity, with waiting lists. At one treatment center, 93 percent of gamblers said they committed crimes to support their habit, and 50 percent said they had considered suicide.[1]

Recent surveys in Minnesota show that 2 percent of Minnesota's gamblers account for 63 percent of the dollars wagered and suggest that "problem gambling affects poor families ... at twice the rate of the general population."[1]

The rate of pathological gambling among adolescents, particularly Indian adolescents, is high. Ken Winters, Ph.D., and Randy Stinchfield, Ph.D., at the University of Minnesota's Center for Adolescent Substance Abuse estimate that 3.5 percent of Minnesota's teenagers are gambling at potentially pathological levels, up from 2.9 percent in 1990.[3]

But is gambling a *medical* issue? Is compulsive gambling a disease or simply a moral failure, a poor lifestyle choice? These questions sound like fodder for debating clubs, not quandaries for doctors' offices. But as gambling grows in Minnesota, physicians will increasingly be confronted with people like Sam Brown, patients for whom pulltabs, blackjack, and bingo are as fatal as Russian roulette.



The Pathology of Betting

"Even while I approach the gambling hall, ... as soon as I begin to hear the clinking of money being poured out, I almost go into convulsions."

These are not the words of Sam Brown or any of Minnesota's other problem gamblers. Fyodor Dostoyevsky used them to describe his own compulsion in his semi-autobiographical novel, "The Gambler," written in four intense weeks in 1867 both to purge himself of his own ruinous habit and to pay off the debts acquired in its pursuit.

Dostoyevsky's novel offered remarkable insight into the devastating impact of compulsive gambling, but not for another 113 years did doctors officially recognize it as a pathology. In 1980, the "Diagnostic and Statistical Manual," 3rd edition (DSM-III),[4] published by the American Psychiatric Association, declared pathological gambling to be an impulse control disorder, "a chronic and progressive failure to resist impulses to gambling, and gambling behavior that compromises, disrupts, or damages personal, family or vocational pursuits."

Michael Marcotte, director of Gambler's Choice, Minnesota's most active treatment center for gamblers, has been working with problem gamblers since 1977, long before the spread of casinos, lotteries, and pulltabs in our state. Only recently, he says, have physicians begun making referrals for gambling, but there is no question in his mind that it should be considered a disease. "There is a pathology to gambling, a progression, a set of symptoms identifiable through early, middle, and late stages, as in any illness. This is not about people being bad. This is an addiction as serious as alcoholism."

> "As a psychiatrist, I see pathological gambling as one of the addictive illnesses."
>
> –T. E. Weier, M.D.

Marcotte refers to phases of addictive gambling, from the initial development of a psychological dependency, to a later stage of "a spiritual breakdown, where gamblers start to compromise basic values and beliefs." In the late stages, he says, problem gamblers can experience a physical breakdown.

Physical problems are common and serious among compulsive gamblers. "I have clients talk about withdrawal symptoms," says Bill Bergwall, chief counselor at the Fairview Riverside Compulsive Gambling Treatment Program. "I've had clients that have hallucinated, that have seen slot machines inside television sets that are turned off. They [experience] sleeplessness, rapid heart beat, trouble with their appetites. When people really get addicted, it's not uncommon for them to stay up for two to three days and gamble. I don't know who could conceivably do that if there wasn't some form of biological transaction taking place."

The desire to win, the inevitability of loss, the need to find more money, and the offenses, such as lying and stealing, that compulsive gamblers often commit eventually lead to further physical problems. Stress levels among gamblers are extraordinarily high. Often, gamblers become so preoccupied with playing that they neglect to take care of their physical needs.

"Stress is going to come out," says Marcotte. "And it can come out in the form of gastrointestinal problems, headaches, low back pain, skin irritations, rashes. Some women are presenting themselves now with urinary tract infections because they'll sit at machines or a pulltab booth for 15 to 20 hours without using the rest room."

These physical manifestations and the obvious social consequences of a gambling compulsion are similar to those seen among serious cocaine or alcohol addicts. "As a psychiatrist, I see pathological gambling as one of the addictive illnesses," says T. E. Weier, M.D., Fairview Riverside's specialist in adult addictions. "When people get hooked, it's as addicting as cocaine."

Illness or Irresponsibility?

With compulsive gambling, there is no ingestion of a chemical, no obvious addictive agent. So should compulsive gambling be considered a true addiction, an actual disease? The answer has far-reaching implications for research funding, for treatment programs, and for those insurance companies that have thus far resisted paying for treatment.

"It's a very serious psychological disorder. I think a lot more people commit suicide than anybody knows," says Tom Doshan, Ph.D., a Minneapolis psychologist and director of Gamblers' Alternatives. "But I *don't* think it's a physical disease."

Doshan, a recovering gambler himself, admits he's a "heretic" in the field but insists that labeling compulsive gambling a disease sends the wrong message. "If we start calling compulsive gambling a disease, then the person who has it says, 'Well, I've got a disease, there's not much I can do about this.' " He recommends that compulsive gamblers be told instead, "It's a mistaken solution for your life. You're going to have to find some other way to live." This gives them more responsibility, says Doshan.

Addiction author Stanton Peele concurs that describing behavior in terms of disease and addiction can "legitimize, reinforce and excuse the behaviors in question—convincing people, contrary to all evidence, that their behavior is not their own."[5]

And conservative critics like Charles Sykes, Richard Vatz, and Lee Weinberg argue that by "medicalizing" those who gamble in excess, we declare them "victims" and relieve them of the responsibility of controlling their behavior.[6-8] "A gambler's admission that he cannot control his gambling may constitute not the beginning of better behavior, but the final step in a self-fulfilling prophecy," write Vatz and Weinberg. "Gambling is a problem that people bring on themselves."

This fervent dispute—though often posed as a philosophical proposition, gambling: sin or disease?—has very practical implications for the insurance industry. "There just aren't very many health insurance programs that are covering compulsive gambling," observes Roger Svendsen, director of the Gambling Problems Resource Center in St. Paul. "Part of it, I think, is an attitude that only dumb or irresponsible people gamble. I don't think the word 'sick' crosses their minds."

> "It's a very serious psychological disorder. But I *don't* think it's a physical disease."
>
> –Tom Doshan, Ph.D.

According to Mark Heymans, director of communications for Blue Cross and Blue Shield of Minnesota, "Compulsive gambling, in and of itself, is not considered a primary diagnosis in terms of payment for treatment. But if gambling results in a health issue, say acute depression, then it's covered." Heymans says it's akin to an individual engaging in a risky activity like rock climbing. "We don't cover rock climbing, but if that person fell and had an accidental injury, it would be covered."

A few HMOs have made the leap of faith. "We cover for pathological gambling," says Sara McFee, HealthPartners' manager of corporate communications. HealthPartners views compulsive gambling as a mental illness and will pay for treatment if the patient is evaluated through its referral process.

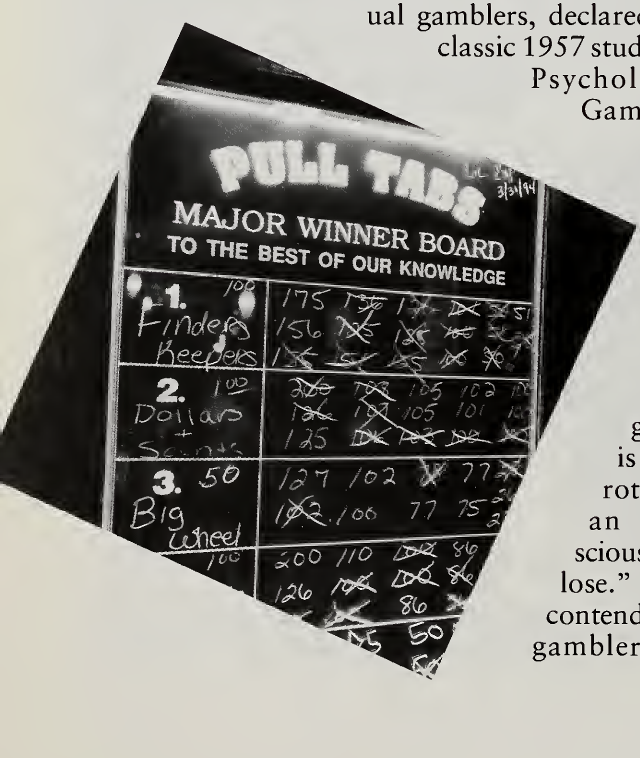
But treatment counselors have found that most insurance companies are tight-fisted. "Insurance coverage is real spotty," says Fairview Riverside's Bill Bergwall. "Most of the HMOs ... view gambling as a lifestyle change adjustment." Bergwall says that of the 70 clients treated in his program since May 1992, insurance covered only three.

David Cummings of the Minnesota Insurance Information Center, an industry consortium, defends HMO reluctance to cover gambling treatment. "There's not a heck of a lot of information on the whole concept, and especially on the treatment side," he says. "It's an evolving situation."

The Etiology of Compulsive Gambling

Gambling has a long and checkered history. Dice have been found in Egyptian tombs and Babylonian ruins. Ancient Chinese developed paper cards first used to divine the future but later used in games of chance. Emperor Nero was said to have bet the equivalent of $40,000 on a single roll of dice. And it was Roman soldiers, betting on the turns of an upended chariot wheel, who invented roulette, Dostoyevsky's game of choice.

Still, it was only at the beginning of this century that scientific journals began to discuss habitual gambling. And again, we owe a debt to Dostoyevsky, who served as the subject for a posthumous psychoanalysis in 1928 by Freud, in which Freud attributed Dostoyevsky's gambling compulsion to a deep-seated masochism deriving from his guilt over a desire to kill his father. Not surprisingly, Freud also related gambling to masturbation.[9]



Edmund Bergler, one of the first researchers to study a large number of habitual gamblers, declared in his classic 1957 study, "The Psychology of Gambling," that a compulsive gambler is "a neurotic with an unconscious wish to lose." Bergler contended that gamblers were not weak, immoral people but individuals beset by an illness, and as such, should be accorded medical treatment, not moral condemnation.[10]

> "This is not about people being bad. This is an addiction as serious as alcoholism."
>
> –Michael Marcotte

More recently, however, practicing psychiatrists have rejected Bergler's theory, saying that gamblers don't need to lose, they simply need to gamble, and the losses follow inevitably. In the 1970s, Robert Custer, M.D., a psychiatrist with the Veterans Administration, treated hundreds of habitual gamblers and concluded that few of them were neurotics, nor did many exhibit an unconscious wish to lose.

Arguing that problem gamblers closely resemble substance addicts whose lives become overwhelmed by pursuit and use of an addictive agent, Custer was instrumental in convincing the American Psychiatric Association to include pathological gambling in the "DSM-III."

Research continues on many fronts. Behavioral psychologists such as B. F. Skinner have theorized that gambling behavior is determined by the pattern of rewards. "The efficacy of such schedules in generating high rates has long been known to the proprietors of gambling establishments," noted Skinner. The reinforcement of gambling behavior with infrequent wins can maintain gambling well into pathological levels, when "the utility is negative and the gambler loses all."[11,12]

Other psychologists have looked for personality characteristics of people prone to habitual gambling, using tests such as the Minnesota Multiphasic Personality Inventory to suggest, for example, that many compulsive gamblers score high on the Psychopathic Deviate and Psychasthenia scales. Others have tested for levels of arousal, intelligence, and locus of control, with varying and inconclusive results.

However, researchers have consistently found high levels of depression among habitual gamblers, and they theorize that some people use gambling to alleviate depression. "Gamblers are very normal in every other way, but they *do* have very high rates of depression," according to Sheila Specker, M.D., a psychiatrist at the University of Minnesota, who is just completing a study of psychiatric problems among gamblers in treatment. "I would say that maybe 60 percent to 70 percent of these people meet full psychiatric criteria for a major depression that *preceded* the onset of their gambling."

She speculates that people may try to treat their depression with gambling to alter how they feel. "They describe [a] sense of alteration of mood—not euphoria exactly but a change in how they feel about things—with gambling. It probably does something to neurotransmitters like alcohol and drugs do."

Specker's mention of neurotransmitters raises the intriguing idea that habitual gambling may have a biological etiology. One study found that gamblers have different EEG patterns than controls—patterns similar to those seen in children with attention deficit disorder.[13] More recent research has indicated that gamblers perform significantly worse than controls on higher-order attention measures, supporting a hypothesis that deficits in neuropsychological function are a risk factor for developing a gambling addiction.[14]

Studies of brain chemistry have found significantly different patterns of noradrenaline metabolites in gamblers, indicating that gamblers may have a functional disturbance of the noradrenergic system, which, in turn, has been linked to sensation-seeking behaviors and extroversion, both characteristic of habitual gamblers.[15-16] Research has also indicated that gamblers may differ from one another biochemically; horse-race gamblers, for instance, have lower base-line levels of beta-endorphin than poker-machine players.[17]

Another recent study of depressed patients and pathological gamblers showed that levels of a neuromodulatory peptide (diazepam-binding inhibitor) are closely correlated with levels of corticotropin-releasing hormone, which is thought to play a role in dysregulation of the hypothalamic-pituitary-adrenal axis, the best documented neurobiological abnormality found in depression.[18] Two interesting but small-scale studies treated gamblers with an antidepressant (lithium carbonate) and a serotonin reuptake blocker (clomipramine) and achieved excellent results.[19]

As this cursory review indicates, the etiology of compulsive gambling is complex and still poorly understood. The links with depression, sensation-seeking, arousal, and neurochemical dysfunction are suggestive, but not conclusive, and a quick resolution to the gambling-as-disease debate is unlikely.

The Physician's Role

Whether or not it's considered a disease, compulsive gambling is clearly a serious and growing problem in Minnesota. Increasingly, patients are likely to show up in

Resources

Minnesota Compulsive Gambling Hotline	800/437-3641
Gamblers Anonymous	612/922-3956
Gam-Anon (for families of gamblers)	612/922-3956
Minnesota Council on Compulsive Gambling	218/722-1503 or 800/541-4557
National Council on Problem Gambling	800/522-4700
Minnesota Gambling Problems Resource Center	800/437-3641

State-Funded Treatment Centers

Call the Minnesota Gambling Problems Resource Center (800/437-3641) or the Minnesota Council on Compulsive Gambling (800/541-4557) for referral to other gambling treatment agencies in Minnesota.

Central Minnesota Mental Health Center	St. Cloud	612/252-5010
Gambler's Choice/Intervention Institute	Minneapolis	612/331-1006
Upper Mississippi Mental Health Center	Bemidji	218/751-3280
Lake Superior Area Family Services	Duluth	218/722-2273
Vanguard Gambling Program	Granite Falls	612/564-4948
Fairview Riverside Compulsive Gambling Treatment Program	Minneapolis	612/672-4429

clinics around the state with physical and psychological complaints tied to habitual gambling.

Doctors need to be aware of it, to ask the right questions, and, if necessary, make the proper referrals. "From a physician's standpoint, it might just be a detection and referral issue," says Professor Ken Winters. Compulsive gambling should be approached as if the patient has a problem with alcohol or drugs, he says.

Many experts note that the shame associated with compulsive gambling, as with many addictions, can prevent a patient from revealing the problem. "If you don't ask, they don't tell you," observes Weier of Fairview Riverside. "But if it's there, it can be causing a lot of problems." Physicians may notice symptoms of stress or depression or may sense that a patient is preoccupied with unexplained financial difficulties.

Marcotte suggests that doctors ask questions that might reveal a problem with gambling, such as, "How are things going in your home life? How is your financial situation? Your marriage? What do you do for recreation? Do you gamble?"

Warning signs can also be manifest in other family members. "You may see some abandonment issues with children," notes Bill Bergwall. "When either one parent or both are involved in gambling, frequently kids are left home alone. And if money gets spent for gambling, proper nutrition can become an issue for children."

"It's a sticky problem," admits Winters. "Physicians don't want to spend time doing something they don't think will have payoff, and they may not be interested in making their client feel uncomfortable. But the important thing is to know that there *are* treatment options now."

Indeed, Minnesota has more than 60 agencies with personnel who have completed the Minnesota Council on Compulsive Gambling's counseling program, and six gambling treatment programs are funded by state gambling revenues. Most use an abstinence-based, 12-step model that combines group therapy with attendance in Gamblers Anonymous and lengthy aftercare. And because the six state-funded programs are full, the Advisory Committee on Compulsive Gambling of the Department of Human Services has called for quadrupling state funding for treatment and prevention of problem gambling.[1]

Compulsive gambling may never be fully accepted as a medical disease, but doctors in Minnesota will see its effects in their waiting rooms with increasing regularity. Physician awareness of the problem may well be the first step in recovery for patients who, knowingly or not, have bet their lives on a losing proposition. **MM**

Douglas Clement is a Minneapolis-based free-lance writer.

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Improving Communication Between Physicians and Medicare Carriers

Jack Alexander, M.D., Thomas Recht, M.D., Thomas Stolee, M.D., and Janet Silversmith

Minnesota physicians have a new opportunity to discuss and help resolve Medicare issues with local Medicare officials. The Medicare program has established a Medicare Carrier Advisory Committee in each state to provide a formal communication mechanism. The purpose of the committees is to facilitate information exchange, allow participation in development of local Medicare policies, and identify areas requiring administrative improvement. Medicare at both national and state levels is interested in fostering improved relationships with providers.

This article explains the history, structure, and goals of the Minnesota Carrier Advisory Committee. If you are involved with, affected by, or have an opinion about the Medicare program, the Carrier Advisory Committee may be an important resource.

> "The Medicare program has established a Carrier Advisory Committee in each state to facilitate information exchange and allow participation in development of local Medicare policies."

Background

The federal Medicare program was established in 1965 under the Social Security Act as a health insurance program for the aged and disabled. Medicare and Medicaid programs are administered by the Health Care Financing Administration (HCFA), an agency of the U.S. Department of Health and Human Services, which contracts with insurance companies in each state to process and pay Medicare claims. These companies are referred to as "Medicare carriers." In Minnesota, The Travelers has jurisdiction in Anoka, Dakota, Fillmore, Goodhue, Hennepin, Houston, Olmsted, Ramsey, Wabasha, Washington, and Winona counties. Blue Cross and Blue Shield of Minnesota covers the state's remaining 76 counties.

The Medicare program pervades the nation's health care system, is quite complex, and affects nearly every physician in one way or another. Effective communication between health care providers and Medicare carriers is critical in implementing medical and reimbursement policies, as well as for ensuring compliance with these policies.

In 1992, the U.S. Department of Health and Human Services instituted a committee to identify procedures that unnecessarily increase paperwork, impair carrier-physician communication, and increase the costs of practice. The Committee on Medicare Physician Relationships (also known as the Gary Committee) recommended that HCFA strive to improve communication between physicians and Medicare carriers by requiring each carrier to establish a local advisory committee of physicians and health care providers from various specialties. In response, HCFA sent instructions in July 1992 to carriers in each state for setting up a Medicare Carrier Advisory Committee (CAC) to serve as a "formal, well-publicized method for physicians and the carrier to address issues of concern to both."

Although numerous national issues are of concern to providers, HCFA directed the CACs to focus primarily on local issues, stating that national policy concerns are HCFA's responsibility. The CACs are encouraged to discuss the following:

- local administrative issues;
- electronic claims processing;
- focused medical review;
- changes in the AMA CPT codes;
- new technology;
- non-labeled drug use; and
- local medical review policies.

HCFA is particularly interested in using CACs for local medical review. Medicare carriers are required to follow national coverage policies, but, in the absence of national policies for new technologies or surgical procedures, carriers have the discretion and responsibility to develop local medical review policies. These policies determine what is medically necessary and reasonable for individual items and services.

The CACs will be used as dissemination points for proposed medical policies. Each policy under consideration by a carrier has a 45-day notice and comment period. HCFA anticipates that CAC members will distribute the review policies to colleagues for additional comments.

In the past, Medicare carriers relied on other means to notify physicians and solicit comments on policies, usually through distribution to state medical societies. However, concern existed that some carriers were not receiving adequate feedback. The CACs are an opportunity to standardize the review process.

HCFA determined that the following are national policy issues outside the scope of the CACs:

- physician payment reform;
- fee schedules;
- volume performance standards;
- conversion factors;
- relative value units;
- rebundling initiatives;
- concurrent care policies; and
- individual disputes.

Physicians may voice their concerns about national policies, but HCFA has emphasized that physicians and carriers do not have the authority to change national policy. Medical directors of the Medicare carriers can, however, document and present local physicians' concerns at meetings held with HCFA throughout the year.

> "The Minnesota Carrier Advisory Committee would like input from physicians throughout the state. Individuals with appropriate issues are encouraged to contact their representative."

Minnesota's Carrier Advisory Committee

Minnesota's Carrier Advisory Committee held its first meeting in December 1992 and held subsequent meetings in February, May, and August 1993. The committee will continue to meet quarterly. At its first meetings, the committee addressed:

- focused medical review;
- distribution of Evaluation & Management code reports;
- medical policies concerning self-administered chemotherapy, transurethral incision of the prostate, transcranial Doppler, transrectal ultrasound, intravenous gamma globulin, blepharoplasty, and laser TURP;
- a compendia-based drug bulletin of oncology drugs;
- the comprehensive medical review process; and
- the limiting charge compliance program.

Most committee members have reacted positively to the initial meetings. Many members said they were pleased and surprised by the opportunity for direct conversations; others were cautious, but optimistic.

The committee consists of one representative and an alternate for each of the 29 specialties designated by HCFA; one representative and alternate for the Minnesota Medical Association; and one representative and alternate for the American Medical Association. The MMA worked with state specialty societies to identify these representatives. In addition, HCFA directed that the committee include a chiropractor, an optometrist, a podiatrist, a beneficiary representative, a representative of the Minnesota Medical Group Management Association, the medical directors of the two Medicare carriers, and the medical director of the Peer Review Organization in Minnesota (see sidebar on pages 19 and 20 for a complete listing of CAC members).

The Minnesota Carrier Advisory Committee would like input from physicians throughout the state. Individuals with appropriate issues or problems are encouraged to contact the representative from their specialty on the committee. Any CAC member may recommend an agenda item.

Support from Organized Medicine

Both the American Medical Association and the Minnesota Medical Association support the establishment of Carrier Advisory Committees to open dialogue between Medicare carriers and physicians. According to Mark Segal, Ph.D., director of the AMA's Department of Health Care Financing, the AMA believes CACs can play an important role in "enhancing physician input into carrier operations and decisions."

In response to concerns about the role of CACs and to dispel the initial confusion about the issues that members can bring up for discussion, the AMA established the CAC Conference. The computer-based "conference" is an on-line program that enables AMA and state medical association staff who monitor the CACs and the Medicare program to readily exchange information and compare and contrast the process, achievements, and problems of the various state committees. The AMA hopes to help the CACs achieve the objectives for which they were established. The CAC Conference also allows the AMA to monitor issues of national concern and to provide HCFA with timely feedback on the performance of CACs nationwide.

Conclusion

It is too early to determine whether the Minnesota Carrier Advisory Committee is an effective mechanism for physician participation in local Medicare policy development, although initial evaluations are positive. CAC members urge physicians to contact them with concerns or problems. Active participation from the provider community will be critical to the committee's success. MM

Thomas Recht, Jack Alexander, and Thomas Stolee are co-chairs of the Minnesota Carrier Advisory Committee. Recht is Medicare medical director of The Travelers. Alexander is Medicare medical director of Blue Cross and Blue Shield of Minnesota. Thomas Stolee, the MMA's representative on the committee, is a pathologist at Miller-Dwan Hospital in Duluth. Janet Silversmith is a policy analyst at the MMA with responsibility for reimbursement and public health issues.

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Acute Pyogenic Spondylodiscitis with Epidural Phlegmon

Diagnosis and Management by MRI and Multidisciplinary Approach

Azam Ansari, M.D., Douglas H. Yock, M.D.,
John L. Seymour, M.D., and Thomas Gilbert, M.D.

ABSTRACT

We describe two cases of acute pyogenic spondylodiscitis and epidural phlegmon that resolved under medical management, emphasizing the pivotal role of magnetic resonance imaging (MRI) and a multidisciplinary approach for early diagnosis and follow-up.

Acute pyogenic spondylodiscitis (APSD) in adults is insidious in onset, with fever, dysphagia when APSD is located in the cervical spine, back pain when APSD is located in the thoracic or lumbar spine, and later, possible symptoms and signs of spinal cord compression if an epidural inflammatory mass (phlegmon or abscess) develops as a complication. Considerable controversy exists regarding the pathogenesis and management of APSD. Two illustrative cases with pertinent clinical and imaging observations may help reduce the controversy.

Case No. 1: Cervical Spondylodiscitis

A 50-year-old man with known ischemic cardiomyopathy developed cough and sudden onset of pain in the posterior lower cervical area and then became febrile (101° to 102° F) and developed dysphagia. Cervical spine x-rays showed spondylosis at C5-C6 with narrowing of the disc space. Barium contrast esophagogram showed no intrinsic obstruction. Sedimentation rate was 41 mm/hr. White blood cell count was 9,500 with 72% polymorphonuclear leukocytes (PMNs). Three blood cultures, aerobic and anaerobic, were negative.

MRI of the neck showed signal abnormality involving adjacent portions of the C6 and C7 vertebral bodies (Figure 1); however, the disc between them was normal, and the adjacent vertebral end plates were not destroyed. An anterior epidural mass suggesting phlegmon was present (white arrow), with no compression of the spinal cord.

We prescribed broad-spectrum intravenous antibiotics (ciprofloxacin and Primaxin), along with analgesics, bed rest, and cervical collar for immobilization. The patient became afebrile and dysphagia-free at the end of the first week and was completely pain-free at the end of the second week of in-hospital treatment. He never developed symptoms or signs of cord or nerve-root compression. Therefore, a neurosurgical consultant did not recommend surgical intervention.

We performed a follow-up MRI with contrast four weeks after the initial study (Figure 2). The scan showed interval loss of height of the C6-C7 disc, new erosion of the adjacent end plates of C6 and C7, and contrast enhancement throughout the two vertebral bodies. The epidural mass (phlegmon) had resolved. We found no evidence of abnormal intradural enhancement involving the spinal cord or subarachnoid space to indicate intrathecal extension of infection.

The patient was treated with oral ciprofloxacin for another four weeks as an outpatient and remains asymptomatic. Follow-up cervical spine x-rays showed progressive narrowing of the C6-C7 disc but no vertebral malalignment consistent with healing APSD.

Case No. 2: Lumbosacral Spondylodiscitis

A 73-year-old man with known diabetes mellitus, ischemic cardiomyopathy, and chronic congestive heart failure developed sudden onset of low back pain while turning in bed and then became febrile (101°) and developed altered sensorium. When admitted, he was afebrile but hypotensive and oliguric. Sedimentation rate was 25 mm/hr. White blood cell count was 17,500 with 90% PMNs. Blood cultures consistently showed coagulase-positive *Staphylococcus aureus* resistant to penicillin but sensitive to cephalosporin, ciprofloxacin, vancomycin, and gentamicin. Transthoracic echocardiogram raised the question of possible vegetation on the anterior leaflet of the mitral valve, and transesophageal echocardiogram confirmed it (see Figure 3).

MRI of the lumbosacral region initially showed signal abnormality on T2 imaging of the L5-S1 disc, but the adjacent vertebral plates were intact. We considered the possibility of an anterior epidural mass suggesting phlegmon with narrowing of the spinal canal. Follow-up MRI showed further increased signal intensity in the disc on T2-weighted sequences (Figure 4), abnormal enhancement both within the disc space and adjacent vertebral bodies, narrowing of the disc space, and extension of an anterior epidural phlegmon. The end plates were intact. The patient remained intact neurologically.

We treated the patient with judicious use of insulin, intravenous fluids, and bactericidal antibiotics (ciprofloxacin and cephalosporin), along with analgesics and bed rest for immobilization under the cover of venous thromboembolism prophylaxis. He became normotensive, increased his urine output, and became culture-negative on the seventh day. He was pain-free at the end of the second week of in-hospital treatment and fully ambulatory at the time of discharge (three and one-half weeks from onset). He never developed signs or symptoms of nerve-root compression. Therefore, a neurosurgical consultant did not recommend surgical intervention.

We treated the patient with oral ciprofloxacin for another four and one-half weeks as an outpatient. Follow-up lumbar x-rays showed progressive narrowing of the L5-S1 disc and irregularity and sclerosis of the superior end plate of S1 and inferior end plate of L5, but showed no vertebral malalignment, consistent with healing APSD.

Discussion

APSD is characteristically a disease of men over age 50 and is most frequently caused by *Staphylococcus aureus*, although other organisms, such as pneumococcus, *Streptococcus*, *Hemophilus*, *Pseudomonas*, *Mycobacterium*, and, rarely, fungi, can also be responsible. When infection is hematogenous, a single organism is involved. Common predisposing factors are extremes of age, diabetes mellitus, intravenous drug

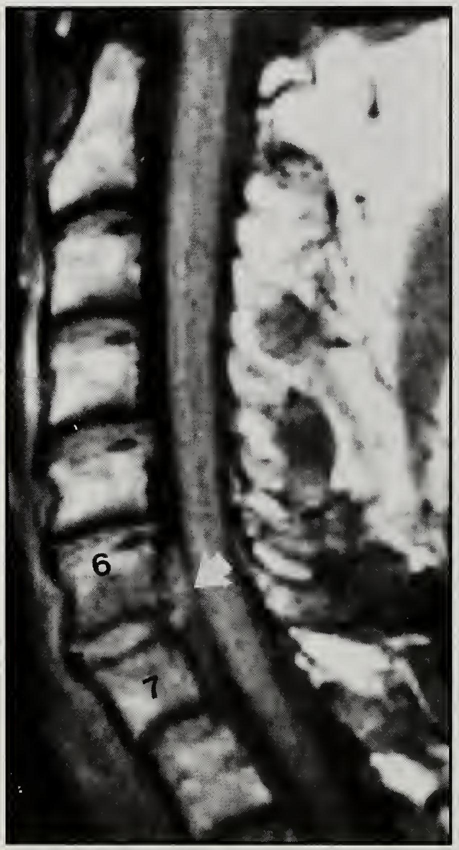

Figure 1—T1-weighted sagittal noncontrast MRI scan performed approximately five days after the onset of symptoms shows abnormally low signal intensity in the mid and inferior aspect of the C6 and superior aspect of the C7 vertebral bodies. An anterior epidural phlegmon (white arrow) centered at the C6-7 level does not compress the spinal cord (see discussion in text).

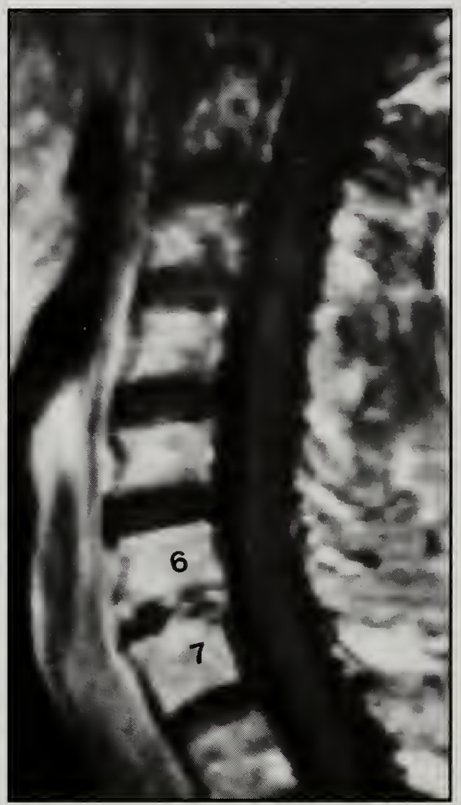

Figure 2—T1-weighted sagittal postcontrast MRI scan performed one month after the study in Figure 1. There is interval loss of height of the C6-7 disc space, as well as erosion of the adjacent cortices of the C6 and C7 vertebral bodies. Residual areas of long T1 within the involved vertebral bodies were seen on a noncontrast scan but are masked by contrast enhancement, which approximates the normal short T1 of uninvolved fatty marrow. The anterior epidural phlegmon present on the initial scan has resolved in the interval.

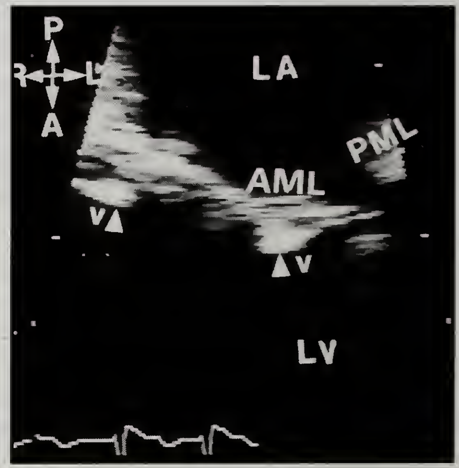

Figure 3—Transesophageal 2D echocardiogram (transverse axis) shows focal mobile (realtime) echogenic densities (vegetation) on the ventricular surface of both mitral and aortic valves (arrows). Coagulase-positive *Staphylococcus* bacteremia was detected on multiple blood cultures that became negative one week after initiation of intravenous antibiotics. LA=left atrium; LV=left ventricle; AML=anterior mitral leaflet; PML=posterior mitral leaflet; AV=aortic valve; LVOT=left ventricular outflow tract.

abuse, intravenous access, discography, infective endocarditis, urinary tract infection, chronic alcoholism, and immunosuppressive states.[1] Ischemic cardiomyopathy (present in both cases described above) has not been previously recognized as a possible risk factor predisposing to APSD.

Because of the simultaneous or rapid sequential involvement of adjacent vertebrae, as well as the occurrence of the intervening disc, "spondylodiscitis" is a more accurate term than "osteomyelitis" or "discitis," as used in the past. Ratcliff studied the anatomic basis of the pathogenesis and radiological features of spondylodiscitis by micro-arteriography in both adults and children.[2] He postulated that a septic embolus causes primary infarction in bone of the metaphysis (long bone) or in subchondral bone near a vertebral end plate. Because the intraosseous arteries in children are anastomotic, only a small portion of bone is destroyed as compared with adults, in whom a large portion of the bone is involved. This is because the intraosseous arteries are end arteries. The intervertebral disc is avascular at all ages beyond infancy and becomes involved secondarily, with equal frequency in both adults and children. Ratcliff's observations, which emphasize the primary role of bone infection with secondary discitis, can be used to argue in favor of the term "spondylodiscitis" rather than "discitis" alone.

Fever and elevated sedimentation rate should alert doctors to the possibility of APSD in a patient with neck or low back pain and/or dysphagia; however, misdiagnosis or delay in the diagnosis often occurs, particularly in the elderly.[3]

Plain roentgenography, bone scintigraphy (gallium 67), computerized tomography, and MRI may all be employed to confirm the clinical diagnosis of APSD. Although each of these modalities may be diagnostic, they are not mutually exclusive; our experience, as well as that of others, favors MRI as the initial imaging method of choice even for clinical suspicion of APSD. Advantages of MRI include sensitivity to early edema within vertebral marrow, as well as excellent demonstration of any epidural or paraspinal extension of the infection. The lack of radiation exposure in MRI is also advantageous if serial imaging is needed, as is often the case during observation and medical management. MRI has largely replaced myelography in assessing spinal cord compression related to APSD because it is noninvasive and offers clear demonstration of the cord.

The earliest changes of APSD demonstrated by MRI in one of our cases involved the disc space (L5-S1 in the second patient). However, in

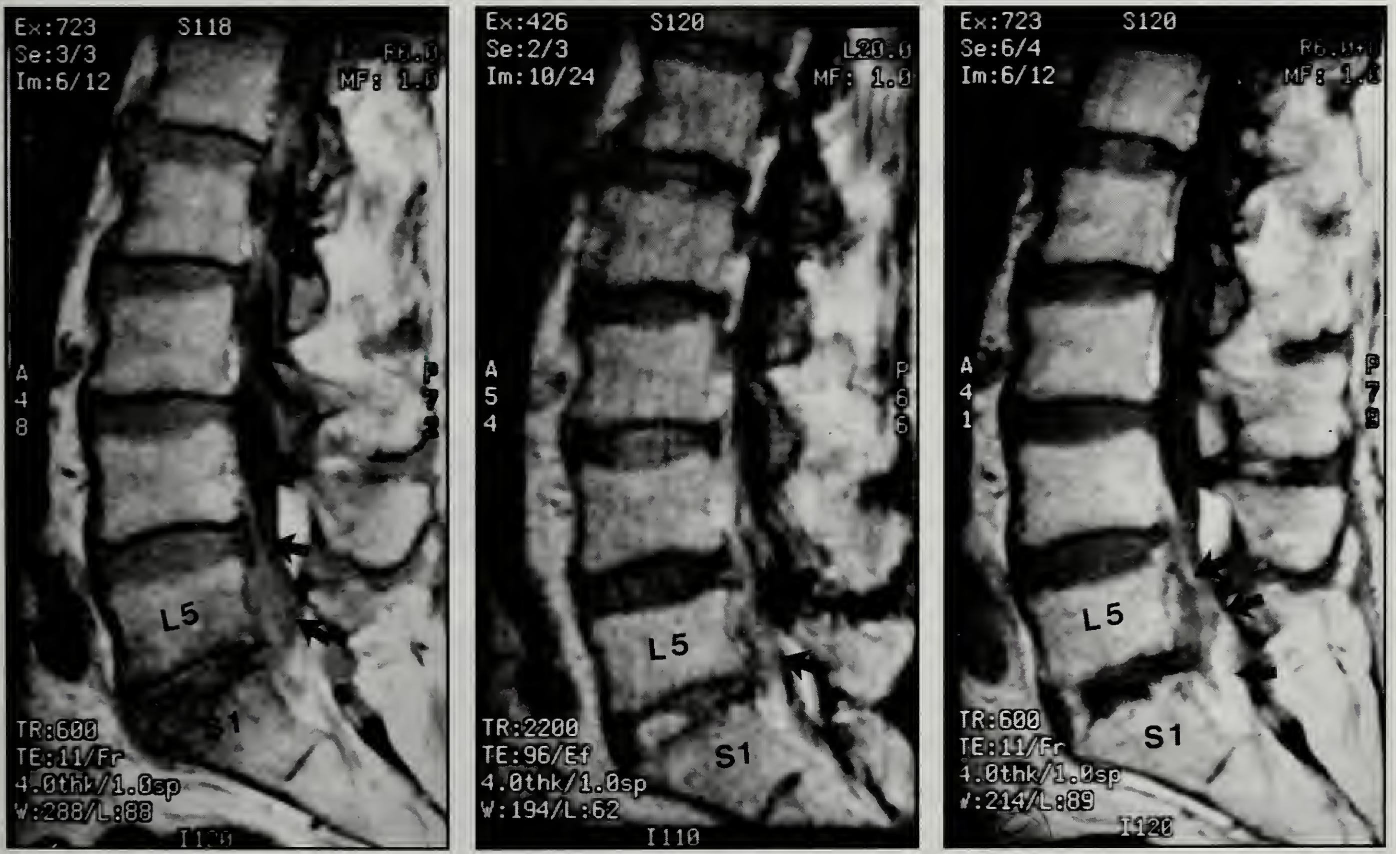

Figure 4 (A)

Figure 4 (B)

Figure 4 (C)

Pre-Gd T_1 sagittal image (A) shows abnormal intermediate signal intensity in the L5 and S1 vertebral bodies and an intermediate signal intensity anterior epidural mass (arrows). Pre-Gd T_2 sagittal image (B) shows abnormal increased signal intensity within the disc space and anterior epidural mass. Areas of abnormal signal intensity in the L5 and S1 vertebrae noted on T_1 pre-Gd images are isointense, with normal marrow indicating some prolongation of T_2. Post-Gd T_1 image (C) shows enhancement in the interior disc and in the adjacent vertebral bodies, which are again isointense with normal marrow. There is heterogeneous enhancement in the anterior epidural mass, consistent with abscess or phlegmon (arrows).

the first patient, the major abnormality initially apparent on MRI involved the vertebral bodies rather than the intervening disc. In fact, significant epidural extension of the inflammatory process (phlegmon) had developed before any associated disc-space changes (see Figure 1).

Case No. 1 also demonstrates that T1-weighted studies of the spine performed only after the injection of contrast material may lead to impaired recognition of inflammatory or neoplastic disease involving vertebral bodies. As illustrated in Figure 2, the normal T1 prolongation of marrow pathology may be countered by the abnormal contrast enhancement, producing a falsely normal appearance. In fact, a recent article[6] suggests that in cases of postoperative discitis, enhancement of the disc space and adjacent vertebral bodies was a somewhat specific sign in the diagnosis of APSD. This might be overlooked without pre-Gadolinium T_1 images.

Although management of APSD remains controversial regarding duration of antibiotic therapy and the role of surgery, it is agreed that immobilization by bed rest, cervical collar, lumbar brace, judicious use of analgesics, and appropriate intravenous and oral antibiotics for eight weeks,[1] along with close monitoring for cord compression, is the initial management of choice. There is high risk of cord compression when the site of APSD is located in the thoracic spine. Declining sedimentation rate assures satisfactory progress in controlling and eradicating the disease. Radical debridement and spinal fusion have been recommended for the presence of new neurological deficits, progressive neurological impairment, persistent bacteremia, antibiotic-resistant organism, or marked instability of the spine due to destruction.[4] The result of early surgical intervention is often neurological improvement and solid interbody fusion.[5]

Conclusion

The prognosis in APSD has improved because of increased diagnostic acumen, multidisciplinary approach (medical, surgical, and radiological), new imaging techniques such as MRI, and more effective antibiotics. Early diagnosis and improved medical management may reduce the need for surgical intervention, as demonstrated in the two patients described. MM

Acknowledgment

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Regulating Physician Conflicts of Interest

Tighter Restrictions on Referral Relationships among Providers

Tobi Tanzer, J.D.

Many professional affiliations and business arrangements that once were viewed as standard course in health care—patient referrals, physician recruitment packages, the sale of medical practices—now frequently give rise to charges of physician conflicts of interest. Federal and state lawmakers have attempted to deal with concerns about such conflicts, including the financial strain they are said to put on the nation's health care delivery system, by restricting physicians' ability to engage in arrangements that may present conflicts of interest.

Restrictions generally have come in the form of anti-kickback or self-referral laws. The anti-kickback provisions of the Medicare and Medicaid Fraud and Abuse Statute[1] prohibit providers from offering or receiving anything of value in exchange for or the promise of patient referrals. Self-referral laws prohibit providers from referring patients to facilities in which the providers have an ownership or other financial interest.

Recent legislative developments concerning anti-kickback and self-referral issues will significantly affect Minnesota physicians. The provider conflicts of interest provision in the 1992 MinnesotaCare legislation applies the federal anti-kickback provisions to *all* providers statewide, as opposed to just Medicare and Medicaid providers (however, the 1993 MinnesotaCare amendments appear to offer some relief to providers who participate in integrated service networks). On the national front, Congress has broadened the federal law known as the Stark legislation,[2] which currently bans physicians from referring Medicare patients to clinical laboratories in which they have a financial interest, to include a ban on such referrals to 10 additional types of medical services and items.

In addition to further legislative restrictions, physicians face careful scrutiny from federal agencies, such as the Health Care Financing Administration and the Internal Revenue Service, regarding possible anti-kickback ramifications of the sale of medical practices.

> "Recent legislative developments concerning anti-kickback and self-referral issues will significantly affect Minnesota physicians."

Many of these developments are in their infancy, with some in the form of legislation with no implementing regulations. The ultimate impact on physicians is still far from clear. Although physicians can't be expected to anticipate the unknown, they should be aware of the apparent trends toward tighter restrictions and should consider re-evaluating existing or proposed relationships when patient referral is a possible component.

MinnesotaCare Expands Anti-Kickback Provisions

In 1992, Minnesota joined a growing number of states working to curtail physicians' ability to refer patients to facilities in which the physicians have a direct or indirect financial interest. As part of the state's overall health care cost-containment efforts, the 1992 version of MinnesotaCare[3] directed the commissioner of health to "adopt rules restricting financial relationships or payment arrangements involving health care providers under which a provider benefits financially by referring a patient to another provider, recommending another provider, or furnishing or recommending an item or service."[4] The rules must be compatible with the federal anti-kickback provisions, and no less restrictive. However, they may be *more* restrictive than the federal anti-kickback provisions and the related regulations and may apply to additional groups, businesses, and professional arrangements.

Under the federal anti-kickback provisions, it is illegal to knowingly and willfully offer, pay, solicit, or receive any remuneration (any form of payment, direct or indirect) in return for or as an inducement for 1) referring Medicare/Medicaid patients to Medicare/Medicaid providers; or 2) purchasing, leasing, or ordering any service or item reimbursable under Medicare or Medicaid (or arranging for or recommending the same).[5]

Penalties for violating the anti-kickback statute can include fines of up to $25,000, imprisonment up to five years, and exclusion from Medicare/Medicaid programs. Monetary penalties and prison sentences can be even greater for individuals and corporate entities who have been convicted under mail fraud and other federal anti-fraud statutes, which have recently been successfully invoked by federal enforcement agencies to prosecute health care fraud.

MinnesotaCare expands on the federal anti-kickback provisions in two significant ways. First, it provides that, until the commissioner of health adopts rules implementing provisions on physician conflicts of interest, the federal restrictions will apply to arrangements involving the treatment of *all* patients in the state—not just Medicare/Medicaid patients, as is the case under federal law. Second, providers who violate MinnesotaCare's provision on provider conflicts of interest are subject to a civil penalty of the greater of $1,000 or 110 percent of the estimated financial benefit reaped by the provider as a result of the prohibited referral or other financial arrangement.

This year's MinnesotaCare legislation,[6] which has come to be known as the Integrated Service Network Act, amended the provider conflicts of interest provision in the 1992 law by offering some relief to ISN participants. However, to date, that relief has been more promise than pith.

The ISN Act provides that an arrangement between an ISN and any or all of its participating entities is not subject to liability under the MinnesotaCare restrictions on provider conflicts of interest. Exactly what this means is cause for speculation. Should ISN-participating physicians simply not worry about potential conflicts of interest on the state level when they structure financial arrangements in the ISN context? Should physicians not participating in ISNs be gearing up for an all-out ban on self-referrals?

According to officials at the Minnesota Department of Health, we are not likely to get answers to these questions for quite some time. Rules implementing MinnesotaCare's provisions on provider conflicts of interest probably will not be announced until the definitive structure of the overall health care delivery system in Minnesota is more fully developed.

Many critics of the federal anti-kickback provisions would argue that the ISN Act's approach to provider conflicts of interest is right on target. As provider affiliations become increasingly integrated and complex, they say, anti-kickback and other conflicts of interest restrictions should be loosened—not tightened, as appears to be the national trend. The Minnesota Legislature apparently endorsed that approach by including the exception in the ISN Act. "The Legislature finds that the formation and operation of integrated service networks will accomplish the purpose of the federal Medicare anti-kickback statute, which is to reduce the over-utilization and overcharging that may result from inappropriate provider incentives."[7]

In addition, the Minnesota Legislature found that the anti-kickback provisions "should not be interpreted to interfere with the development of [ISNs] or to impose liability for arrangements between an [ISN] and its participating entities."[7]

Government Promises Eight New Safe Harbors

Federal regulations implementing the anti-kickback provisions take the form of "safe harbors." Currently, they specify 12 types of business arrangements that are exempt from the anti-kickback provisions if the arrangements meet certain narrow, specific conditions. The types of arrangements for which safe harbors have been created include certain investment interests in publicly held and privately held companies, space and equipment rental arrangements, payments under personal services and management contracts, and payments under bona fide employment contracts (see "Any Port in A Storm: The Medicare and Medicaid Safe Harbor Regulations," *Minnesota Medicine*, November 1991, page 25).

Eight additional safe harbors were approved this past July by Health and Human Services Secretary Donna Shalala. Although details about the proposed safe harbors will not be made available until publication in the *Federal Register*, the following types of arrangements are expected to be exempted from prosecution under the federal anti-kickback provisions if they meet certain specified—and as yet unknown—criteria:

- investment interests in rural providers;
- investment interests in ambulatory surgery centers, when the investing physicians provide the patient services;
- group medical practices comprising active physician investors;
- physician recruiting programs;
- malpractice and obstetric insurance subsidies to share patient access in underserved areas;
- specialty care referrals;
- hospital services cooperatives; and
- physician practice purchases/recruiting programs by rural hospitals.

The proposed safe harbors have been undergoing a second review by the Office of Management and Budget. Upon approval, a revised list will be published in the *Federal Register* for a 60-day public comment period before the final list of safe harbors is issued. As *Minnesota Medicine* went to press, this list was expected to be published in the *Federal Register* at the end of September.

Providers and their attorneys may recall that the first safe harbors, published in July 1991, contained significant changes from the original proposals. As a result, many business relationships between providers that had been planned around the original safe-harbor proposals had to be restructured or unwound. Accordingly, providers and their attorneys are urged to exercise caution if planning any cross-provider arrangements between now and the time the final versions of the new safe harbors are published.

Stark Legislation Gets Starker on Self-Referrals

In August, President Clinton signed the 1993 Omnibus Budget Reconciliation Act (OBRA '93),[8] which will impose new restrictions on physician self-referrals. OBRA '93 significantly expands the existing Stark legislation,[2] the current federal ban on physician referrals to clinical labs in which the physicians or their families have a financial interest or compensation arrangement. OBRA '93 expands the application of the Stark legislation in two significant ways. First, the statute prohibits physicians from referring Medicaid patients (in addition to Medicare patients, as was the case under the original Stark legislation) to clinical labs, effective December 31, 1994. Second, starting January 1, 1995, physicians will be prohibited from referring Medicare and Medicaid patients to 10 additional types of facilities if the physicians or their family members have investment or other financial interests in or compensation arrangements with those facilities, which are referred to as "Designated Health Services." They include:

- physical therapy services;
- occupational therapy services;
- radiology or other diagnostic services;
- radiation therapy services;
- durable medical equipment;
- parenteral and enteral nutrients, equipment, and supplies;
- prosthetics, orthotics, and prosthetic devices;
- home health services;
- outpatient prescription drugs; and
- inpatient and outpatient hospital services.

In addition to the expanded applications of the Stark legislation, OBRA '93 clarifies many existing exceptions to the legislation. It also includes some additional exceptions, such as:

- office space and equipment rentals;
- bona fide employment relationships;
- personal services contracts;
- physician recruiting practices;
- payments unrelated to the provision of designated health services; and
- certain isolated transactions approved by the Department of Health and Human Services.

OBRA '93 also includes a new definition of "group practice," thereby modifying the exception for referrals among group practice members. In addition, OBRA '93 expands the definition of what constitutes a "financial interest" and modifies other definitions in the Stark legislation.

Because many provisions are highly technical, physicians are encouraged to work closely with their attorneys to take advantage of the exceptions to the Stark legislation that are made available or modified in OBRA '93.

Penalties for violating the Stark legislation and the related OBRA '93 provisions include denial of Medicare reimbursement, civil monetary penalties, and exclusion from Medicare/Medicaid programs.

Congress Considering Further Restrictions

Several proposals for expanding the Stark legislation even beyond OBRA '93 provisions are currently pending in Congress. The most expansive proposal—the one that would put the most restrictions on provider relationships—would ban physician referrals across the board to any entity in which the physician has a financial interest, regardless of type of provider or payment source. The proposal would make it unlawful to make or pay claims for services that resulted from an illegal referral. Moreover, it would give a patient or third-party payer the right to sue a provider for the amount of payment, plus costs and attorney's fees, if that provider knew or should have known that the services were provided as a result of an illegal referral. The proposed law would take effect upon adoption and would not grandfather in existing arrangements that violate the prohibition.

> "Physicians should consider re-evaluating existing or proposed relationships when patient referral is a possible component."

Agencies Scrutinize Practice Sales

The Minnesota Legislature and Congress haven't been the only governmental bodies involved in anti-kickback and self-referral issues. This past December, an official in the Inspector General Division of the Health Care Financing Administration outlined views on the application of anti-kickback statutes to physician practice acquisitions. In a letter to the Internal Revenue Service, Associate General Counsel D. McCarty Thornton said his office will focus on both the initial amount paid to physicians for purchased practices and the ongoing compensation for providing patient or administrative services to determine whether the value and volume of a potential referral stream have been taken into account in connection with the sale. If either amount or both taken together exceed the fair-market value of the purchased practice, then such payments will imply compensation for the value of the referral stream, in violation of the anti-kickback provisions, said Thornton.

Thornton also said that when determining the fair-market value of an ongoing, viable medical practice, it is inappropriate to consider intangibles, such as patient lists and records, goodwill, or ongoing business value. In his view, these assets "only have value with respect to the ongoing flow of business to the practice."

Thornton's letter has been controversial, particularly in light of his negative view of the traditional practice of taking such business intangibles into account. Nevertheless, physicians and their attorneys should be mindful of the Thornton letter when selling or merging their practices. Although the Thornton letter may currently be of little precedential value and should not be relied upon as the definitive statement on how to value a medical practice, it does indicate the degree of caution with which the Inspector General's Office views physician practice acquisitions.

Conclusion

In Minnesota, the federal anti-kickback provisions of the federal Medicare and Medicaid Fraud and Abuse Statute now apply to referrals of all patient business, regardless of the source of payment. The ban on clinical laboratory self-referrals has been expanded to many more industry segments. Physicians and their attorneys should be taking these legislative efforts seriously, especially considering that the American Medical Association has recently solidified its position against physician self-referrals, enforcement agencies have stepped up their efforts, and reform insiders are rumored to have a heightened level of interest in physician conflicts of interest. MM

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Confidentiality of Medical Records Under Minnesota Law

Joel H. Green, J.D.

Confidentiality of medical records is one of the most pervasive issues confronting health care practitioners today. The issue can arise at almost any stage of care—treating or referring patients, seeking reimbursement for treating patients, responding to patients' and their loved ones' requests to review records, and a variety of other situations. Understanding confidentiality as it pertains to medical practice is vital to health care practitioners and to those who assist them in daily practice.

Foundations of Confidentiality

The obligation of confidentiality is founded upon Minnesota statutes, primarily the Patient Bill of Rights,[1] the Access to Health Records statute,[2] and the Government Data Practices Act.[3] Confidentiality is also mandated in professional licensure statutes, and it has been addressed in court cases.

The Patient Bill of Rights

The Patient Bill of Rights,[1] enacted in 1973, covers individuals receiving mental health services on an inpatient or outpatient basis, as well as individuals admitted for medical or surgical care to an acute care facility for a continuous period longer than 24 hours. With respect to confidentiality of medical records, it states that "patients and residents shall be assured confidential treatment of their personal and medical records and may approve or refuse their release to any individual outside the facility."

According to the statute, this right does not apply to complaint investigations and investigations by the Department of Health, to release of records required in third-party payment contracts, or to other situations where release of records is required by law.

Court cases

Although the Patient Bill of Rights established a broad basis for the confidentiality of medical records, it contained some significant loopholes. Notably, patients who received medical services at a facility for a period less than 24 hours were not covered under the law.

> "Understanding confidentiality as it pertains to medical practice is vital to health care practitioners."

A landmark Minnesota case addressed this problem in 1989. The case of *Stubbs v. North Memorial Medical Center*[4] involved disclosure without patient consent of a day-surgery patient's confidential information. The court held that health care practitioners have a duty to uphold confidentiality based on the common law theory of "implied contract." The court quoted the federal court case of *Hammonds v. Aetna Casualty and Surety Company*,[5] stating that whenever a physician undertakes treating a patient, the physician enters into a simple contract—the patient hoping to be cured and the doctor assuming he will be compensated. "As an implied condition of that contract, ... the doctor warrants that any confidential information gained through the relationship will not be released without the patient's permission," said the court, also citing the promise of discretion contained in the Hippocratic Oath. The court concluded that physicians who break their duties of secrecy are in violation of their obligation under contract.

Access to Health Records

After the *Stubbs* case, the Minnesota Legislature enacted broad patient confidentiality legislation, which it attached to the 1977 Access to Health Records statute,[2] originally designed to address patients' right of access to medical records.

Subdivision 3a of the statute, which was added in 1991 and amended in 1992, restricts providers from releasing health records without a signed and dated consent from the patient unless the release is specifically authorized by law. With certain exceptions, the consent is valid for only one year or for a lesser period specified in the document. Some exceptions to the one-year limitation include consents for the release of health records to a provider who is being advised or consulted in connection with the patient's current treatment and the release of health records to third-party payers under certain circumstances.

Negligent or intentional violation of the obligation of confidentiality under this statute may result in liability for compensatory damages, as well as costs and reasonable attorney's fees.

Government Data Practices Act

Another statutory basis for the obligation of confidentiality arises under Chapter 13 of the Minnesota Statutes, the so-called Government Data Practices Act.[3] This statute mandates confidential treatment for "medical data" collected from patients or clients of a hospital, nursing home, medical center, clinic, or a health or nursing agency operated by a state agency or political subdivision. This information includes business and financial records, data provided by private health care facilities, and data provided by or about relatives of the patient.

The law stipulates that medical data cannot be disclosed to others except under certain circumstances, such as to fulfill a valid court order or to administer federal funds or programs. Under the statute, medical data can be distributed to the survivors or heirs of a deceased patient or to family members and other appropriate individuals to communicate a patient's or client's condition in accordance with acceptable medical practice, unless the patient or client directs otherwise.

Health care personnel should note that the exceptions to confidentiality set forth in the Government Data Practices Act are not entirely congruent with other statutory obligations of confidentiality. For example, the Government Data Practices Act permits disclosure to a competent patient's family without express patient consent (unless the patient directs otherwise), whereas the Access to Health Records statute permits such disclosure *only* upon a patient's express consent.

Professional licensure statutes

Professional licensure statutes also obligate members of the health care professions to maintain confidentiality of patient information and records. For example, the statute that governs the licensure of physicians and surgeons (including osteopaths) provides that the Board of Medical Practice may impose disciplinary action against a practitioner who reveals "a privileged communication from or relating to a patient except when otherwise required or permitted by law."[6] Privileged communication is defined as "any information or opinion based thereon which the professional [licensed physician or surgeon, dentist, or chiropractor] acquired in attending the patient in the professional capacity, and which was necessary to enable the professional to enact in that capacity."[7]

Legal Disclosure

Disclosure of confidential information is permitted upon patient authorization, and the key element for such legal disclosure is written consent with patient understanding. The health care provider should communicate with the patient the nature of the information to be disclosed, the identity of the recipient, and the purpose for which the information will be disclosed. The provider must explain the patient's right to revoke or rescind the authorization at any time. These principles are consistent with the key underlying concept identified by the courts in *Stubbs* and *Hammonds*—that the conduct of the health care practitioner must be consistent with patients' reasonable expectations when disclosing patient information to a third party on a consensual basis.

> "Generally, physicians have a duty to safeguard the confidentiality of patient information, but in certain circumstances, they are required to disclose pertinent information."

To safeguard these principles, Minnesota statutes establish specific technical criteria for a written form of authorization required to permit disclosure upon patient consent. For example, the Access to Health Records statute permits a release of patient records only with a written, signed, and dated consent that, subject to certain exceptions, is valid for no more than one year. The Government Data Practices Act requires a written, dated statement in plain language that specifies the particular persons or agencies to which the information can be disclosed; the nature of the information the patient is authorizing to be disclosed; the purpose for which the information may be used; and the expiration date, not to exceed one year (except in the case of life insurance or guaranteed renewable health insurance, in which case the expiration date can be up to two years after the policy date).

Disclosure to Third-Party Payers

Some statutes permit disclosure of confidential information to third-party payers without patient consent; others do not. For example, the Patient Bill of Rights permits health care providers to disclose records without patient consent when required by third-party payment contracts. However, as with the entire Patient Bill of Rights, this provision applies only to inpatient providers, with the exception of mental health care providers. Other providers are not covered by this express exception, and there is no similar exception under the Access to Health Records statute.

Health maintenance organizations (HMOs) typically include an authorization for disclosure in a certificate of coverage or enrollment form signed by the enrollees and/or beneficiaries to allow for claims processing and payment. Similarly, insurance companies typically include a statement in their policies requiring beneficiaries to authorize the disclosure of necessary claims information. Insurance companies also include an authorization for release of information on the claims assignment forms for providers and the claims submission forms for beneficiaries. Self-insured plans typically include statements in the summary plan descriptions providing that a beneficiary's use of benefits is deemed consent for the disclosure of information necessary to process claims.

Before rendering services, providers should require new patients to sign authorization forms consenting to the release of claims information to third-party payers. This complements the disclosure authorizations that insurance companies, HMOs, and self-insured plans require. With the Legislature's enactment of Subdivision 3a of the Access to Health Records statute in 1991, health care providers would be prudent to request that patients renew these authorization forms annually since under the statute consent may expire after one year.

When preparing authorization forms, both third-party payers and providers must specify the recipient of disclosed information, the purpose for disclosing the information, and how the information will be used. When a provider or third-party payer anticipates that the information will be communicated not only to the third-party payer, but also to its independent agents performing utilization review, quality assurance, and case management functions, or to agents serving as mental health and substance abuse gatekeepers, the authorization should include these agents as authorized recipients of the confidential patient information. The authorization should also contemplate a rerelease by those agents to the third-party payer, as necessary for claims processing, administration, or appeal. Furthermore, as third-party payers become ever more active in the management of care, it is increasingly important that such authorization include not only the receipt of confidential information, but also the exchange of information between the provider and the third-party payer and its agents.

Practitioners' Reporting Obligations

Generally, physicians have a duty to safeguard the confidentiality of their patients' information. However, under certain circumstances, physicians are required by law to disclose pertinent information.

Warning of a patient's violent behavior

The landmark case of *Tarasoff v. University of California Board of Regents*[8] gave rise to the provider's duty to warn or protect probable victims against violent actions of a dangerous patient. This duty arises when a provider has knowledge that a patient intends to endanger the safety of another individual whose identity is known to the provider. The provider needs to determine at what point the duty to warn outweighs the patient's right to confidentiality. Providers may wish to obtain legal counsel in making this determination.

Certain Minnesota health practitioners also have a statutory duty to warn. Minnesota law sets forth that practitioners have a duty to warn or take other reasonable precautions to provide protection from a patient's violent behavior when it presents a specific, serious threat of physical violence against a specific, clearly identified or identifiable potential victim if the patient or another person has communicated such a threat to the practitioner.[9] "Practitioner" is defined narrowly for the purpose of statutory reporting requirements as "a psychologist, school psychologist, nurse, chemical dependency counselor, or social worker who is licensed by the state or who performs psychotherapy within a program or facility licensed by the state."[10] This statutory obligation can be met by making a reasonable effort to communicate the threat to the potential victim. The statute provides immunity from liability when disclosure is made pursuant to the section and in good faith to warn a potential victim.

Reporting Abuse and Neglect

Other exceptions to the duty of confidentiality arise in certain circumstances when a practitioner suspects abuse or neglect. Current law obligates physicians and certain others to report child abuse or neglect to the local welfare agency, police department, or county sheriff if they know or have reason to believe that a child is being neglected or physically or sexually abused or if they believe the child has been abused or neglected in the preceding three years.[11] Failure to make a mandated report is a misdemeanor. Minnesota law grants immunity from civil or criminal liability for those who make reports in good faith. Also according to law, the reporter's name will be kept confidential in most circumstances while the report is under assessment or investigation.

Physicians have similar reporting obligations in cases of prenatal exposure to controlled substances and abuse or neglect of vulnerable adults. According to law, physicians must immediately report to the local welfare agency if they know or have reason to believe that a pregnant woman has used a controlled substance for a non-medical purpose during her pregnancy.[12]

Under the Minnesota Vulnerable Adult Act,[13] physicians must notify authorities if they know or have reason to believe a vulnerable adult is being abused or neglected.* In addition, they must report instances when a vulnerable adult has sustained a physical injury that is not reasonably explained by the person's history of injuries as provided by the person's caretaker.

The 1985 case of *Thelen by Thelen v. St. Cloud Hospital*[14] highlights the risk arising from the failure to comply with reporting obligations. In *Thelen*, the court ruled that the Minnesota Vulnerable Adult Act imposed absolute liability for damages on the defendant hospital,† which failed to report an employee's sexual abuse of a patient. The court held that for the hospital to be absolutely liable under the act, the plaintiff only had to show that the patient was a vulnerable adult according to the statute and that the hospital failed to make a report; the plaintiff was not required to show that the patient was unable to protect herself from the type of abuse received. As a result of *Thelen*, there is no defense against liability if a person or entity required to report abuse of a vulnerable adult fails to do so.

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*Vulnerable Adult is defined as any person 18 years of age or older who: 1) is a resident or inpatient of a facility; 2) receives services at or from a facility required to be licensed to serve adults, except a person receiving outpatient services for treatment of chemical dependency or mental illness; 3) receives services from a licensed home health care provider; or 4) is unable or unlikely to report abuse or neglect without assistance because of impairment of mental or physical functions or emotional status, regardless of residence or type of service received (Minn. Stat. § 626.557, subd. 2).

† Two physicians were also named as defendants in the plaintiff's complaint but settled with plaintiff and were dismissed.

Other Reporting Requirements

Various Minnesota statutes include additional mandatory, as well as some permissive, reporting requirements. Each provision has specific requirements that should be reviewed prior to making a report. Physicians uncertain about specific reporting requirements may wish to contact legal counsel before making a report.

Health care practitioners are required to report cancer surveillance data;[15] vital statistics;[16] the diagnosis of certain communicable diseases;[17] certain conditions suggesting criminal offense;[18] information relevant to workers' compensation claims;[19] diagnosis of traumatic brain injury;[20] and certain data under MinnesotaCare legislation (see "Data Collection Under MinnesotaCare" in the September 1993 *Minnesota Medicine*, page 35).

Minnesota law provides for permissive reporting of impaired drivers[21] and people who are a "health threat" to others.[22]

Patients' Access to Health Records

As noted above, the Access to Health Records statute was originally enacted to address patients' right of access to medical records. The term "patient" is defined in this statute as "a natural person who has received health care services from a provider for treatment or examination of a medical, psychiatric, or mental health condition, or a person the patient designates in writing as a representative."[23] Under the Access to Health Records statute, the parents of a minor generally have access to their child's health records. An exception exists for minors who give valid consent under the "emancipation" legislation for their own treatment. In such an event, the minor's parents do not have the right to access their child's records unless the provider determines that failure to inform the parents would seriously jeopardize the child's health.

Subdivision 2 of the Access to Health Records statute describes patients' legal access to their own health records. Upon patient request, a provider must supply the patient with complete and current information concerning the patient's diagnosis, treatment, and prognosis in terms and language the patient can be expected to understand. Upon written request, a provider also must furnish to the patient either 1) copies of the patient's health record, including but not limited to laboratory reports, x-rays, prescriptions, and other technical information used in assessing the patient's health condition, or 2) the pertinent portion of the record relating to a specific condition. With the patient's consent, the provider may instead furnish only a summary of the record. The provider may exclude from the health record written speculations about the patient's health condition, but all information necessary for the patient's informed consent must be provided.

Subdivision 2 further states that if a provider reasonably determines that the information would be detrimental to the physical or mental health of the patient or would likely cause the patient to inflict self-harm or to harm another, the provider may withhold the information from the patient and may instead supply the information to an appropriate third party or to another provider. The other provider or third party may release the information to the patient. However, providers who have not previously designated and described the specific basis for withholding the information must release information upon written request.

The Patient Bill of Rights refers to the Access to Health Records statute, thus incorporating it into the Bill of Rights. Additionally, the Patient Bill of Rights provides that physicians must give their patients and residents complete and current information concerning their diagnosis, treatment, alternatives, risks, and prognosis in terms and language the patients or residents can reasonably be expected to understand. The information must include the likely medical or major psychological results of the treatment and its alternatives; however, in cases where this is medically inadvisable as documented by the attending physician in a patient's or resident's medical record, the information must be given to the patient's or resident's guardian or other person designated by the patient or resident as a representative.

Conclusion

The laws surrounding confidentiality of medical records, including physicians' duty to report abuse and neglect and patients' right to access their medical records, are important to every health care practitioner. Because of the varied circumstances in which physicians practice, and given the varied statutes governing issues of confidentiality and rights of access to medical records, the rules and laws regarding medical records can be particularly perplexing. As highlighted by the *Stubbs* and *Hammonds* cases, the key factors to keep in mind are the patients' reasonable expectations with respect to the privacy of records and their right to access records. Before taking action that varies with these reasonable expectations, physicians should consider whether a legal basis exists for that variance. If no legal basis exists, patient consent must be obtained. MM

Joel Green is a partner with the Minneapolis law firm of Lindquist & Vennum, where he practices health law.

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Pork Top Loin Roast (boneless), trimmed	165	6.1 g	2.2 g	66 mg
Center Loin Chop, trimmed	172	6.9 g	2.5 g	70 mg
Chicken Thigh, skinless	178	9.2 g	2.6 g	81 mg

*Table refers to 3-oz. cooked servings.

New study: Pork is now 31% leaner

Pork is leaner today because of significant changes made in breeding and feeding techniques.[1] According to new 1992 official USDA data, fresh pork sold today contains an average of 31% less fat after cooking and trimming than the same pork cuts reported in 1983.[1]

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- Trim away any visible fat.
- Keep portions moderate (about 3 oz, cooked).
- Prepare by broiling or roasting, and avoid additional fat in preparation.

[1] US Dept of Agriculture. *Composition of Foods: Pork Products*, 1992. Agricultural handbook 8-10.

[2] US Dept of Agriculture. *Composition of Foods: Poultry Products*, 1979. Agricultural handbook 8-5.

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> –Mark Twain

Americans today live longer than ever. One in four people who are 65 years old today will live to age 90, according to recent statistics. That's nearly three decades in retirement.

People spend their working lives accumulating the assets they need for a happy, secure retirement. Unfortunately, these assets can quickly diminish due to expensive long-term care. Recent statistics show that the likelihood of needing long-term care after age 65 is high. As a result, many people consider long-term care insurance to help preserve quality of life into retirement years.

As a physician, you not only need to evaluate your own needs, but also, patients and family members might turn to you for advice about whether to purchase long-term care insurance. Although you may not want to give financial advice, this article should give you a basis for evaluating the need for insurance and the features of different plans.

Probability and Cost of Long-Term Care

An estimated 43 percent of people 65 or older will be admitted to a nursing home during their lifetime, according to a recent study published in the *New England Journal of Medicine.* When the risk of needing home health care is included, the percentage increases to 60 percent. About 55 percent of those who enter nursing homes stay one year or longer during the course of their lifetime, and about 21 percent require five or more years of nursing home care.

The cost of long-term care can be daunting. Nursing home care can cost anywhere from about $80 to $160 a day ($30,000 to $60,000 a year) depending on the facility and level of care needed, and the cost of home-based care ranges from about $50 to $200 a day (home care may not be necessary every day, so the annual cost varies).

"Many people consider long-term care insurance to help preserve quality of life into retirement years."

Determining the Need for Long-Term Care Insurance

Many people who purchase long-term care insurance do so to give themselves peace of mind in retirement. A study published by the Health Insurance Association of America found that the most important reason people cite for purchasing long-term care insurance is to avoid dependence.

Consider the case of one 79-year-old woman. Before purchasing long-term care insurance, the woman was continually trying to save money and was worried that she might become a burden on her family, even though she had a large estate. After she purchased a long-term care policy, she began gifting her estate to her grandchildren and taking expensive vacations. At 79 years of age, the woman's premium was significant, but the insurance gave her a sense of freedom to spend her money.

People planning ahead for retirement should assess their financial situation and determine their need and desire for long-term care insurance. Medicare provides minimal coverage; on average, it pays less than 2 percent of all nursing home costs nationwide. Basically, Medicare will pay 100 percent of eligible charges for the first 20 days if three conditions are met. First, a doctor must certify that the patient needs skilled nursing care daily. Second, the nursing care must begin within 30 days of a hospital stay of at least three days for the same condition. And third, the care must be in a Medicare-certified skilled nursing facility. For the next 80 days, the patient pays $84.50 a day and Medicare pays the balance. Beyond 100 days, Medicare pays nothing. Most Medicare supplemental policies will pay the Medicare deductible from the 20th day to the 100th day, provided that the expenses are approved by Medicare.

For people with limited assets, Medical Assistance offers a safety net of sorts. Married couples with assets less than $100,000 (excluding their home) and single adults with assets less than $50,000 may find it prudent to evaluate the Medical Assistance laws in Minnesota and determine whether they are comfortable forgoing long-term care insurance.

Couples with assets greater than $100,000 in addition to their home should consider long-term care insurance. On the other hand, couples with extensive assets might choose to forgo insurance. The question is, at what level of assets do you feel safe self-insuring? If you insure your home with homeowners insurance, consider this: only one in 1,200 homes are destroyed by fire in a given year, yet most people have insurance to cover this. However, one in four people over the age of 65 will spend at least one year in a nursing home, and far fewer people carry long-term care insurance. The value of your home can be easily determined, but long-term illness is a significant unknown risk.

Choosing the Right Policy

Minnesota is a good state in which to purchase a long-term care insurance policy, as it has among the highest standards in the country. As a result, many national news articles that warn consumers to be sure policies cover such ailments as Alzheimers are irrelevant in Minnesota.

Long-term care policies in Minnesota must meet several requirements. They must provide benefits for all levels of care and must cover Alzheimers, as well as other mental or nervous disorders with demonstrable organic cause. Policies must cover home health care (at least $25 per visit, seven visits per week) and must begin covering pre-existing conditions within six months from the policy date. The policies must have a waiver of premium feature, must be guaranteed renewable, and must allow a 30-day free look. Finally, they cannot carry a prior hospitalization requirement.

Although long-term care policies in Minnesota must meet these basic requirements, the extra features they offer can vary significantly. Some questions to consider when choosing a long-term care policy include:

- Does the policy contain indexing for inflation or cost of living? Is it only for 10 years or for an extended period? Does the maximum benefit also increase, or only the daily benefit?
- Does the waiver of premium feature waive the premium for nursing home care only, or also for home health care or adult day care benefits?
- Does the policy cover adult day care?
- Does the policy include a respite care benefit?
- What are the benefit levels for home health care? (Most policies pay 50 percent of the nursing home benefit, although others may pay up to the full benefit.)
- What is the specific language for coverage of the home health care benefit? Does it cover such services as nutritional and homemaker services, meal preparation, and similar nonmedical services? Also, consider whether you would like coverage for alternative care or assisted living facilities.
- What are the maximum lifetime benefit choices? Would an unlimited benefit or a defined dollar amount be adequate? (Choices range from as little as $50,000 to unlimited benefits.)
- What daily benefits for nursing home care are adequate? (Daily benefits range from $50 per day to $250 per day.)
- What is the waiting period or deductible period? (The waiting period refers to the number of days from the first day of care until the benefit begins. In Minnesota, the maximum is 90 days.)
- Is there a discount if both spouses apply? Are any other discounts available?
- What are the qualifications to be eligible for benefits? Do they include inability to perform activities of daily living, cognitive impairment, or a physician's plan of care?

Before purchasing a policy, consider whether excess income would be available—beyond the needs of the spouse at home—to supplement nursing home or home health care expenses. Other factors to consider include age, current health, and marital status. People with poor health may not qualify for coverage, but the spouse may still be advised to purchase a plan. In one example, a wife had Alzheimers and the husband was caring for her at home with the help of neighbors, children, and an adult day care center. The stress of caring for his wife may have contributed to the man's episode of strokes, and finally a massive stroke. Within one week of his stroke, both the man and his wife entered a nursing home. The fact that the man had a long-term

Sample Long-Term Care Insurance Proposal

Current age of both spouses	59
Health of spouses	Good
Income at retirement	$5,000 per month
Monthly expenditures	$4,000 per month
Assets	$750,000
Cost of nursing home (assumption)	$3,000 per month ($100 per day)

Because the couple has excess income of $1,000 a month that could be applied to their care, they could purchase a policy with a benefit of $70 a day, or $2,100 a month. They are still young, so they might include a 5 percent compound inflation rider, which means the $70 benefit would increase to $261 a day by the time they reach 86 years of age. They also might include a full home health care benefit and apply for an unlimited maximum. Following is a cost analysis for a policy with these features:

Nursing home daily benefit	$70 increasing to $261
Home health care benefit*	$70 increasing to $261
Annual premium per policy†	$955
Maximum benefit	Unlimited
Inflation	5% compound of daily benefit to age 86

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*Home health care will pay 80 percent of covered daily expenses up to the amount listed.

†Premiums already include appropriate discounts and the best features available. These additional features affect the premium but would not necessarily be included in all plans.

care policy at least alleviated some of the financial stress involved.

If both spouses are approved, many plans will offer a spousal discount on both policies. If there is a wide disparity in ages between the spouses, the discount on the older spouse's policy covers much of the cost for the younger. Additionally, long-term care insurance is even more important for spouses with large age gaps because the older spouse may need care that consumes assets needed by the younger spouse. See the sidebar, page 38, for a sample long-term care insurance proposal.

People often decide to evaluate long-term care insurance at the same time they plan their retirement. Although this is a good time to do that, keep in mind that premiums are lower at younger ages. Long-term care insurance is available from most companies beginning at age 40 and continuing through age 79. A select group of companies issue policies to people in excellent health through age 84.

Conclusion

Much discussion has taken place in Washington about providing long-term care in the new health bill, but the cost could be enormous. Some estimates of the cost for comprehensive long-term care approach $60 billion annually. As *Minnesota Medicine* went to press, President Clinton's health care reform package included a proposal to phase in coverage of skilled nursing home stays up to 100 days. Currently, skilled care is covered by Medicare up to 100 days when coordinated with Medicare supplemental insurance. Less than 5 percent of people in nursing homes require skilled care. The new health care proposal also includes provisions to improve home health care, which would be paid for on a sliding scale copayment. These plans would be phased in between 1996 and 2000. At the same time, however, qualifying for Medicaid is becoming more difficult.

Long-term care insurance can offer individuals the security and peace of mind they deserve in retirement after spending a lifetime saving for these years. Physicians can feel confident about the quality of long-term care policies in Minnesota, which has high standards for such insurance. However, a thorough evaluation of the various policies is necessary, and the advice of a qualified financial adviser may be helpful. MM

Debra Newman is the president of Newman Financial Services and is a nationally recognized speaker on long-term care insurance. Her primary area of concentration has been life and health insurance with a specialization in long-term care insurance.

Effective Partnerships Reap Positive Outcomes

For health care reform to be effective, it is becoming increasingly clear that physicians, health plans, hospitals and other providers will need to focus even more attention on establishing effective partnerships with one another.

An example of one such partnership was established by Medica and its participating physicians to address the mammography needs of Medica members.

In 1990, Medica found that 46 percent of its female members 50 years and older had received mammograms. Ideally, 100 percent would have received mammograms.

To encourage female members to take advantage of this free preventive service, Medica, in partnership with its participating physicians, developed educational materials about its mammography program. As a physician, your influence in recommending mammograms is evident in the results of an American Cancer Society survey, which showed that 94 percent of women whose physicians recommended mammograms had received one. In contrast, only 36 percent of women whose physicians did not make this recommendation had received mammograms.

Medica now mails informational brochures, shower cards showing how to conduct breast self-examinations (BSEs), and booklets to keep track of mammograms and examinations to all of its female members between the ages of 35 and 74. The results show that this program is working, as 49 percent of the members 50 years and older received their recommended mammograms in 1991 and 51 percent received theirs in 1992. While these increases may look modest, Medica believes that the program's value in terms of saving lives cannot be measured.

Through another collaborative program, Medica and Consulting Radiologists, Ltd., jointly offer work-site mammograms to Medica Choice members employed by Minneapolis Public Schools, Eco Water Systems and Federal Cartridge.

In addition to mammograms, this program offers employees workshops that feature a 10-minute video on BSE, and participants receive mammography record-keeping materials and written BSE instructions.

Through efforts such as its mammography program, Medica is working to establish partnerships with you to achieve a common vision and collaborative strategies that will positively affect the health of its members.

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WALLIN

(continued from page 7)

in the wrong direction, was it any big surprise?" he asks rhetorically.

Wallin's recommendations would create a management structure with clear lines of authority. The plan replaces the current vice president of health sciences with a provost who would be the overall head of health sciences and who would report directly to the university's president.

The plan also introduces a chief financial officer, who would report directly to the provost rather than the dean of the medical school. This powerful position would be responsible for the entire financial structure of health sciences. The plan, however, does not address whether the nearly two dozen department administrators in the medical school should report directly to the CFO or continue to report to department heads. Wallin says that type of decision was a step below the scope of his charge and will be left up to the CFO and the dean of the medical school. The dean's position also would be strengthened. Under the current system, the dean has considerable responsibility with little clearly defined authority. To avoid the current ambiguity, Wallin recommends that the university develop a position description with clearly defined and widely publicized responsibilities and authority.

A Changing Market

Changes in the health care system have also taken their toll on the university, requiring other structural changes in the health sciences. Traditionally, the role of the university focused on teaching and research, Wallin says. But government support for both medical education and research has declined. Meanwhile, third-party payers are demanding deeper discounts and more cost-efficient health care. And now providers are teaming up to form networks in preparation for managed competition and in response to the MinnesotaCare legislation.

Under these pressures, the flow of patients—and revenue—into the hospital and clinic is a growing concern. "In order to do the teaching and be an excellent research institution, there must be patients in the hospital," Wallin says. "The university used to be able to get plenty of patients. But the university has higher costs. In the future it's unlikely that those costs are going to be reimbursed, so the hospital and clinic are going to have to become cost-competitive."

Wallin's solution is to unite UMHC with its medical staff, University of Minnesota Clinical Associates, under a single entity called the University of Minnesota Health System.

"Every hospital in the area is trying to get the doctors together with the hospitals. That's what we've done here," Wallin says.

What form of relationship UMHC will have with its medical staff has not been determined, but Wallin says the physicians won't become employees of the university. "I do not visualize ever having an internal practice plan," he emphasizes. "We don't want to create something that is going to become bureaucratic and stifling for the doctors."

A Competitive Outlook

While the health system would exist to draw patients to the university and support its teaching and research missions, it would function independently. A president would be responsible for the system and report to the provost of health sciences. The emphasis would be on making the health system competitive in the market. "It's business," Wallin says, "and we're going to compete."

UMHC has already taken steps in this direction. In addition to cost-cutting measures, UMHC has affiliated with several medical practices in greater Minnesota and has held preliminary discussions with metropolitan hospitals and hospital systems. Earlier this year, there was speculation that the hospital and clinic would split off from the medical school in order to become more cost-competitive. But Wallin says such plans are not a priority right now. "I am more interested in how the hospital, the clinic, and the doctors are going to work closer together," he says. "Divorcing the hospital from the university is not the main priority—the main priority is to get the hospital and the clinic and the doctors together so that we can compete effectively."

Though the university will begin implementing many of these changes this month, Wallin emphasizes that it will take time to revitalize the organization. "This isn't going to be settled in the next two weeks. It's all part of the process of the university finding its proper role in the community from the standpoint of research, teaching, and patient care," he says. "We have to resolve these issues and build something here that will make us proud."

Wallin says his work at the university will be finished sometime next spring. But he won't be at a loss for things to do. "I have plenty of balls in the air," he says, laughing. "Besides, I haven't extracted myself from the university yet." MM

Thomas Allen is a free-lance writer in Minneapolis.

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I am looking forward to serving as your president in the coming year. With health care reform on the horizon, we physicians face both increasing challenges to medical practice and opportunities to improve our health care system. I hope to meet as many of you as I can and to hear your ideas and concerns.

The ability to control our destiny in national and local health care reform depends on the continued unity of our profession. Effective communication, a shared vision, and consensus on critical issues are keys to our success. In a rapidly changing environment, these goals can best be accomplished through organized medicine. As a representative for the state's physicians, the Minnesota Medical Association has the ability and responsibility to influence the public's and private sector's impact on physicians, especially on the relationship between the physician and the patient.

Bureaucrats have encouraged physicians to take competitive positions against one another—to forget the patient. Likewise, government regulators, insurance companies, managed care, hospital corporations, and others have intruded on the physician-patient relationship. If physicians do not maintain the public trust by placing their patients' best interests first, it matters little what we do in the political arena. We will be perceived as self-serving profiteers. Our stand as professionals comes from the quality of our service.

Practicing medicine means not only taking care of the sick, but also helping patients lead healthier and more productive lives. This requires a physician-patient relationship that remains stable, not one that changes every year or two.

> "If physicians do not maintain the public trust by placing their patients' best interests first, it matters little what we do in the political arena."

I believe that health care in America ideally should be local and personal. In fact, I believe health care providers have a moral and civic duty to take responsible, creative, and unselfish action at the local level to restructure health care delivery and financing.

Unfortunately, for the past 20 or so years, the health care sector of our economy has attracted profit-seeking entrepreneurs hoping (and succeeding) to make a fortune. Under the current health care system, health plans and hospital corporations compete with one another at the expense of the patient. Indeed, many deals have been made that have little to do with providing health care for the poor or for community benefit.

MinnesotaCare offers many opportunities to help level the medical playing field, enabling integrated service networks that are locally based, locally controlled, and provider-driven to form and compete with existing Blue Cross/Blue Shield plans, indemnity insurers, and HMOs. MinnesotaCare also will allow patients the opportunity to choose their doctors based on the skill and the quality of the physicians' work. Patients must have freedom to choose their own doctors and to sustain long-lasting relationships. Choice must be the cornerstone of any integrated service network.

Still, there is no single correct answer or right way to proceed in changing the way health and social services are delivered. As physicians, we must continue to search seriously for solutions to the health care crisis with the common goal of providing health care that is affordable, accessible, and accountable. Now is the time to seek out and recognize diverse voices so that we are unified when health care reforms are implemented.

Each physician has a role to play through state, county, or specialty societies or through the hospital medical staff. I have been impressed with the dedication of the MMA leadership and staff in responding to association members' needs, as well as those of patients. But to represent you and your patients, the MMA needs your input, participation, time, and support.

As an old adage asserts, if you tell people something, they don't remember. If you show them, they might remember. But if you involve them, they will remember because they will understand. Let's all become involved in shaping our professional destiny. **MM**

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People and Places Making Medical News

People

Commissioner of Health

Gov. Arne Carlson in August appointed Mary Jo O'Brien commissioner of Minnesota's Department of Health. O'Brien, deputy commissioner of the health department since 1991, played a key role in the development and passage of the state's MinnesotaCare legislation. She was also a member of the National Governors Association that advised the Clinton administration's task force on health care reform and the former director of legislative affairs for the Minnesota Medical Association.

Fairview Ridges Medical Chief

Fairview Ridges Hospital has named Jean Bieraugel, M.D., chief of its medical staff. Bieraugel, who is a family practitioner with Group Health in Apple Valley, is the first woman to hold the position at Fairview.

HRM Senior Medical Director

Susan Crutchfield, M.D., was recently named vice president and senior medical director of Health Risk Management, Inc., in Minneapolis. Crutchfield was previously vice president of medical services for Prudential Insurance Co., where she was responsible for hiring, training, and directing in-house physician consultants, nurse reviews, health care review technicians, psychiatric case counselors, and management staff. Crutchfield will lead HRM's medical decision-making operations.

New Assistant Health Commissioner

Liz Quam, a former MMA staff member in communications, has replaced Andrea Walsh as assistant commissioner of health. In this position, she will handle MinnesotaCare data collection issues. Quam formerly was director of public education at the National Marrow Donor Program.

Walsh recently announced she will join the law firm of Popham, Haik, Schnobrich and Kaufman in November as vice chair of the firm's health care practice group. In that position, Walsh will focus on health care policy, providing counsel to the health care community on the development of integrated service networks and the design of health care information systems.

MMA Alliance President

Mary Bartsch was recently elected president of the Minnesota Medical Association Alliance, a nonprofit volunteer organization composed of more than 1,500 spouses of physicians.

Fairview Public Policy Director

Fairview Hospital and Healthcare Systems named Mary C. Edwards director of public policy. Edwards, who was previously Sen. Dave Durenberger's senior legislative assistant for health, will assess changes and proposals to legislative, regulatory, and public policies and programs.

Health Promotion Awards

William Manahan, M.D., recently received a letter of commendation from the U.S. Department of Health and Human Services for his advocacy work. Manahan, a Mankato family physician, works on behalf of a variety of groups, including the elderly, poor, homeless, women, and gay and lesbian community.

Elders Confirmed as U.S. Surgeon General

The U.S. Senate confirmed Joycelyn Elders as U.S. surgeon general despite opposition from conservative Republicans.

Elders, the former head of the Arkansas Health Department, is known as a stalwart, forceful proponent of family planning, sex education, abortion rights, and, she has added, sexual abstinence among adolescents. However, her candor on strategies to combat teenage pregnancy and infant mortality has left a trail of both controversy and support.

Elders favors a nationwide assault on unwanted teenage pregnancies, including condom distribution by school clinics and earlier sex education in school. She also supports providing the contraceptive implant Norplant to drug-addicted prostitutes at no charge.

Supporters said she would provide a much needed wake-up call for Americans, especially concerning the rise of AIDS and teenage pregnancies. Critics, such as Sen. Don Nickles, R-Oklahoma, contend that "Elders has a very radical agenda."

National Health Care Campaign Head

The Democratic National Committee chose Richard F. Celeste, former two-term Ohio governor, to head the party's National Health Care Campaign. Celeste will try to rally national support for President Clinton's health system reform proposal and to allay concerns of small businesses, pharmaceutical and insurance companies, and physicians.

Places

Highland Park High School Opening Clinic

The St. Paul School Board approved a plan to locate a health clinic in Highland Park High School despite some objections to family planning services the clinic will offer.

Board member Tom Conlon criticized the school-based clinics because they dispense birth control prescriptions and demonstrate condom use to teenagers without parental consent. However, supporters pushed for the clinic because clinic staff advise teenagers not to have sex, but also counsel teens who are sexually active.

The board voted to begin negotiations with Health Start, Inc., a community health organization that already runs clinics in five of St. Paul's six high schools.

The director of health services for the St. Paul schools said clinic staff do not distribute condoms or birth control pills, but they can prescribe them after family planning counseling.

Pilot City Clinic to Expand

The Pilot City Health Center in Minneapolis has begun a $12 million expansion project that will double the space now available at the 25-year-old primary care clinic and is expected to significantly increase the number of patients treated.

The neighborhood clinic, which was established under the Great Society efforts of the 1960s, treats more than 9,000 patients.

Socioeconomics

Itasca County Physicians Quit Rural HMO Program

Thirty-five physicians resigned from Itasca County's managed-care health plan, saying the plan, though successful, doesn't pay doctors enough.

Peter Friedlieb, M.D., a Grand Rapids internist and spokesperson for the physicians, said the doctors are quitting December 1. The physicians believe the Itasca Medical Care plan, or IMCare, has improved care for the county's 4,000 poor and saved money, Friedlieb said. But the state is asking the doctors to subsidize the plan out of their pockets, he said, and has made it difficult to reimburse them for their time and expenses.

Nancy Obradovich, IMCare's program director, said the state assigns the project a lump sum each year, about $6 million in 1993, and health care providers share the financial risk if more is paid out than the county receives. Obradovich said IMCare has controlled costs but that physicians have had to pay IMCare from their own pockets most years because payments to the doctors exceeded the program's income. However, she said, doctors have received more than they would under a standard Medicaid program.

Eveleth Hospital Forced to Close

Declining numbers of patients and rising debts have forced the 24-bed community hospital in Eveleth to close its doors, making it the third hospital in rural Minnesota to shut down this year.

The Eveleth Fitzgerald Community Hospital is more than $300,000 in debt and had been running at only one-quarter occupancy, said Mayor Tom Coombe. Compounding the problem, Eveleth hasn't had a local physician in years, and prospects for one were almost nonexistent.

Coombe said the East Range Clinic in Virginia, Minnesota, rents a clinic in Eveleth but has not sent its patients to the hospital. Most Eveleth residents have been going to hospitals in Virginia or Duluth.

In April, the 13-bed Pelican Valley Health Center in Pelican Rapids, Minnesota, closed because of financial problems. A month later, the eight-bed Comfrey Hospital suspended operations when the community's sole physician died.

United, Children's Hospitals to Expand

The Housing and Redevelopment Authority gave preliminary approval to plans by United and Children's hospitals for a $41 million expansion west of downtown St. Paul, which the hospitals predict would add 800 new jobs to their payrolls.

The HRA, along with the Minneapolis Community Development Agency, approved a joint revenue bond sale of about $285 million. Most of the money will go to retire outstanding debt and refinance it at a lower interest rate.

St. Paul plans to contribute more than $3 million in municipal bonds to acquire land and assist the hospital in launching the expansion. The hospital will start with a $6 million project to construct and expand two parking ramps, which will yield 1,000 additional stalls, said Dan Riehle, vice president of campus services at the hospitals.

Riehle said about half the new jobs would be related to patient care. The remainder would be administrative and services positions.

Four More Join BHCAG

CENEX, Land O' Lakes, Inc., Minnegasco, and Minnesota Mutual Life Insurance Company are the latest members to join the Business Health Care Action Group, a Twin Cities-based coalition of employers. The group, which now has 20 members, developed a common health plan and contracts with area providers through HealthPartners to deliver health care to more than 250,000 Minnesota and western Wisconsin residents.

WIC Gets More Funding

The Minnesota WIC Program (Special Supplemental Food Program for Women, Infants, and Children) will be able to serve another 3,200 participants each month because of additional legislative funding, said state health department officials.

During this year's legislative session, the Legislature allocated an additional $2.9 million to WIC, which provides supplemental food and health-related services to mothers and children with special nutritional needs. WIC serves about 88,000 participants each month.

New Center Offers Interpreter Services

The Minnesota Health Department is setting up a referral center to provide interpreter and translation services for individuals and organizations who serve the state's growing population of residents who don't speak English.

State health officials said the nonprofit Community Interpreter Services center will play an important role in providing health care access and health-related information to non-English speakers.

"Our state has the sixth largest refugee population in the country," said Marlene Marschall, who was health commissioner when plans for CIS were announced in August. "For many of these people, the language barrier is a serious obstacle to getting the kind of services they need. We currently have no systematic way to provide quality interpreter and translation services to social service providers." The health department hopes the center will bridge the gap between clients and providers, she said.

Gay and Lesbian Partners Get Health Benefits

The Minneapolis City Council in August voted to extend health benefits to the partners of gay and lesbian city employees. Despite charges of political opportunism surrounding the vote, which came two weeks before a primary election, gays and lesbians have called the resolution a giant step forward in their struggle for equal rights and protection under the law.

Following the council's lead, the University of Minnesota has become one of the first public higher education institutions to extend health benefits to partners of gay and lesbian university employees.

A committee of the University Board of Regents decided unanimously to extend benefits to same-sex partners, a move expected to cost the university about $250,000 a year if 100 couples register with the university.

Because the university's insurance carrier has refused to extend health benefits to same-sex partners, the university will reimburse domestic partners for their medical insurance expenses up to $2,500, said Carol Carrier, associate vice president for human resources.

Rates, Trends, Data

Minneapolis' Infant Mortality Rates Stagnating

Minneapolis' infant mortality rate has remained nearly unchanged compared with the rate more than a decade ago and shows signs of worsening, according to a report released last month by Mayor Don Fraser's administration.

When Fraser took office in 1980, the city's infant mortality rate stood at 13.1 deaths per 1,000 live births and was dropping—at that time, a laudable statistic nationwide. Now that rate is 12.9, up from the record low of 9.2 eight years ago. The city's rate is 72 percent higher than the state average of 7.5 and higher than St. Paul's rate of 8.5.

Much needs to be done to reverse the social and economic problems that seem to drive the infant mortality rate, Fraser said.

The mayor's report suggests that many social problems contribute to the rise in infant mortality—poverty, teen pregnancy, poor education, and prenatal care—and are worsening in Minneapolis.

Particularly troubling are the distinct disparities in infant mortality rate among races. Rates for blacks (19.8) and American Indians (21.6) are far higher than those for whites (8.2) and Asians (6.1).

Although the racial component of infant mortality is not well understood, the report said the increasing proportion of minority births in the city has helped drive up the rate.

Critics charge that issues of race obscure underlying social and economic problems, especially poverty.

MDH Reports Cyclical Rise in Pertussis

Cases of whooping cough have risen dramatically in the state this year, but the upswing is not epidemic and should not cause undue alarm, according to the Minnesota Health Department.

Most cases of the disease, also called pertussis, are sporadic and isolated, said Mike Moen, director of Disease Prevention and Control for the health department. However, health department officials are urging parents to ensure their children are immunized, and they are cautioning people who may have symptoms of the disease to see a physician.

Last year, 144 pertussis cases were reported, compared with 96 cases in 1991 and only 54 in 1990. So far this year, state and local health officials have investigated 133 cases statewide.

"Pertussis tends to be cyclical," said Craig Hedberg, Ph.D., of the health department's Acute Disease Epidemiology Section. "We typically see a good deal of variation in the number of reported cases from one year to the next."

Medical Research

PSA Test Beats Physical Exam

Researchers found the prostate-specific antigen test, a blood test for early signs of prostate cancer, is twice as effective for detecting early malignancies as a physical examination, according to a study published in the August 25 *Journal of the American Medical Association.*

Researchers used the controversial PSA test to screen more than 10,000 men for high levels of the antigen, which can indicate prostate cancer.

The study found that PSA screening successfully detected serious cancers, as opposed to small, insignificant tumors that appear to pose little problem. However, the Food and Drug Administration has not approved the test for routine cancer screening because the agency is concerned that the test too often gives false-positive results. PSA testing has been approved for use in monitoring cancers already diagnosed.

In a related study, Mayo Clinic researchers found that using "age-specific norms" with PSA testing vastly increases the test's effectiveness and addresses the problems with false-positive and false-negative results.

In a study published in the August 18 *Journal of the American Medical Association*, Mayo researchers determined that the size of a man's prostate and the amounts of PSA it secretes increase with age. They then developed scales that indicate more accurately which patients are likely to benefit from further tests. Under the new Mayo scales, PSA levels previously thought normal for middle-aged men will be considered suspicious, warranting further tests for prostate cancer. Conversely, the new scales may prevent older men from needlessly being subjected to painful biopsies.

CEA Colon Cancer Test Doesn't Work

The carcino-embryonic antigen test, commonly used to detect the recurrence of colon cancer, is practically worthless, said Mayo Clinic researchers in a study published in the August 25 *Journal of the American Medical Association.*

"We found the test extremely unreliable and hope that it will be abandoned," said Charles Moertel, M.D., the study's chief author and professor of oncology at the Mayo Clinic in Rochester. The test does not improve patients' chances for survival, Moertel said, and only effectively detects cancer already in incurable stages.

Researchers analyzed the results of colon cancer surgery performed on 1,216 patients, many from Minneapolis, Rochester, Duluth, and St. Cloud, Minnesota. About 84 percent of the operations were followed by CEA tests, some as often as several times a year. The study showed that the test was wrong more than half the time.

In about 41 percent of the patients, the CEA test initially showed no recurrence of cancer, but further tests and even surgery revealed that the cancer had recurred. In 16 percent of the patients, the CEA test gave false-positive results.

Although the CEA test itself costs $50, researchers calculated that it is a small part of the total cost, which was $1.48 million for the monitoring, tests, and treatment in 1,017 patients. Surgery accounted for most of the cost. Despite the high costs, Moertel said the one-year survival rate for study participants who experienced recurrence was 2.3 percent for patients who had CEA screening, compared with 2 percent for patients who didn't.

"No more lives are saved despite the added expense," Moertel said.

Caffeine May Prevent Postop Headaches

Caffeine on the day of surgery may reduce postoperative headaches in patients who routinely drink caffeinated beverages, report researchers at the Mayo Clinic in Rochester, Minnesota.

In a study of 190 patients who routinely drink caffeinated beverages, researchers found that patients who drank caffeinated beverages on the day of surgery had a lower incidence of headaches (17 percent) than those who abstained (28 percent).

Researchers also found that caffeinated beverage drinkers had a higher incidence of postoperative headaches than patients who did not drink caffeine routinely. MM

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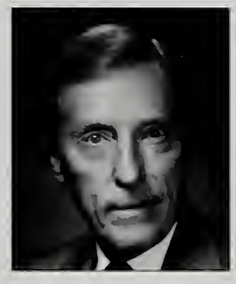
On the Front Burner

Debate Heats Up Over Health Care Reform

Edmund C. Burke, M.D.



"Minnesotans will find the administration's proposal strikingly similar to the state's own reform efforts."

Long on the back burner of the national agenda, health care reform has come to a rolling boil. And everyone has ideas about how to concoct the health care soup and how it should taste.

Our cover story on Clinton's proposal (page 10) outlines the president's recipe for national health system reform and briefly examines the plan's likely impact on MinnesotaCare. (Next month's issue of *Minnesota Medicine* will include an article by Minnesota Health Commisioner Mary Jo O'Brien analyzing the likely impact of national reform measures on MinnesotaCare.) Minnesotans will find the administration's proposal strikingly similar to the state's own reform efforts, and for good reason. About a half dozen Minnesota health care experts were part of Clinton's inner circle and contributed to the proposal, and representatives of the Minnesota Medical Association and the Minnesota Health Care Commission frequently discussed plans with the president's task force.

It's not surprising, then, that the Clinton proposal has aspects similar to MinnesotaCare. It appears that under the proposal, Minnesota's efforts to establish integrated service networks and a regulated "all-payer" system would remain intact. ISNs would still be able to offer purchasing alliances a full range of services at a fixed price, and physicians not involved in ISNs would still be able to provide care on a fee-for-service basis within the regulated all-payer system.

However, President Clinton's plan differs from state efforts in several key areas. The purchasing alliances that MinnesotaCare encourages would be mandatory under the proposed federal system. Insurance coverage for all citizens and legal residents would be mandatory, as well. In addition, the system would require businesses to cover all their employees and pay for about 80 percent of workers' health care insurance premiums.

Most of the health care community has adopted a wait-and-see policy to the president's plan. The MMA strongly supports the goals of Clinton's proposal but is taking a cautious approach to many of the details (see President's Letter, page 31). In particular, physicians are concerned that the plan would limit patient and physician choices and ultimately reduce the quality of medical services.

As Minnesotans await action on Clinton's proposed plan, they are forging ahead with MinnesotaCare. The health care industry is changing rapidly—just take a look at this month's News Clips (page 37) for a sampling of the groups planning to form ISNs. In the past two months alone, HealthPartners and Ramsey HealthCare (parent company of St. Paul-Ramsey Medical Center) agreed to merge, HealthPartners and Park Nicollet signed an agreement, Dakota Clinic and Blue Cross and Blue Shield signed an agreement, and Medica and HealthSpan began negotiating a joint arrangement. Each group has announced its intent to form an ISN. Meanwhile, physician practices are scrambling to prepare for MinnesotaCare, some by forming clinics without walls. This month's Face to Face article (page 6) features Dr. Frank Indihar, an internist who is spearheading the formation of Criterion HealthCare Network, a metropolitan-wide clinic without walls that will include about 575 doctors, 60 percent of whom will be primary care physicians. Forming clinics without walls will allow doctors in small practices to maintain their independence and still negotiate with or form ISNs.

This month's journal also includes two practical and informative articles concerning another issue that affects physicians and medical practice everywhere—AIDS. The Clinical & Health Affairs article, "Current and Future HIV/AIDS Clinical Research" (page 17), examines the current state of research in HIV therapy, including improved strategies for intervention, and looks at the future of anti-HIV therapeutics.

In addition, our Medicine Law & Policy article, "Counseling Patients for Routine HIV Testing" (page 25), provides guidelines for physicians screening patients for HIV and for counseling patients before and after HIV testing. MM

Criterion HealthCare Network

Making Clinics Without Walls a Reality

By Joseph M. Moriarity

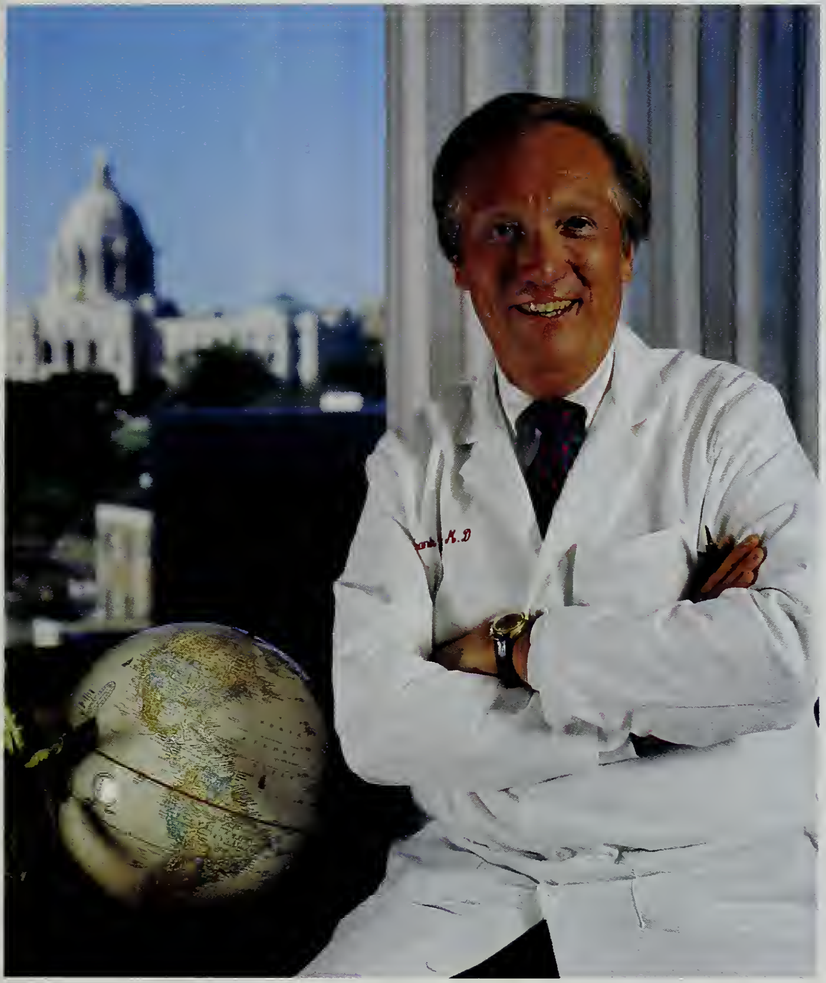
At times in our personal and professional lives, change doesn't just politely tap at the door; it barges right in. In these moments, internist Frank Indihar believes, people react in one of two ways: either they dig in their heels to resist the tide, or they embrace and adapt to the new circumstances. Indihar has taken the latter approach to the tumultuous changes in Minnesota's health care environment."A few years ago when hospitals began calling themselves health care delivery systems, when the Mayo Clinic was having difficulty getting primary care referrals and began buying clinics, and when larger and larger consortiums began forming in the metro area, I suspected that the health care world as we knew it was going the way of the dinosaurs," says Indihar, a past president of the Ramsey County Medical Society who practices with nine other doctors in St. Paul. "I was certain of it when the Legislature passed MinnesotaCare."

Adapting to change requires action. Indihar took action two years ago by joining a 40-physician team drawn from across the metro area. Together with the Hennepin and Ramsey county medical societies and the Minnesota Medical Association, the physicians developed the conceptual framework for the reorganization of medical group practices into clinics without walls. "Our efforts are designed to ensure the survival of independent physicians within the coming system of integrated service networks," he explains. "Only six or eight years ago, approximately 25 percent of physicians were in clinics of 100 or more doctors. Now it's 50 percent and climbing. Those who practice alone or in smaller groups are an endangered species."

Not one to let a good idea wither from lack of attention, Indihar is working hard with like-minded physicians and other professionals to establish Criterion HealthCare Network—in his words, a "metropolitan-wide, primary-care-based clinic without walls." And the efforts are paying off. Criterion is already well on its way to meeting its targeted start-up date of January 1, 1994. According to Indihar, Criterion has nearly achieved its goal of signing up 575 doctors, 60 percent of whom will be primary care physicians and 40 percent specialists. Venture capital to get Criterion up and running comes from its member doctors, each of whom contributes $1,500. According to Indihar, Criterion has also signed a contract with a firm that will provide management services and help set up practice parameters and outcomes measurement. Another vendor is currently setting up a computer system that will electronically link all Criterion physician offices, thus enabling participating doctors to share patient and outcomes data. A program to handle claims and track patients is scheduled to come on-line by mid-December.

Criterion's success also hinges on developing a solid patient base. Contracts with Medica, Northwestern National Life Insurance Co., and DCA (which manages medical plans for self-insured companies with more than 100,000 individuals insured) guarantee enough patients to begin operations. "The fact that we are a metro-wide consortium adds to our attractiveness," says Indihar. "We can quickly and easily integrate records, exchange data, and make referrals throughout the metro area, and, of course, provide convenient access and excellent, cost-effective care for our patients. This is exactly what large buyer coalitions like Dayton Hudson or Norwest Banks want and need. No other hospital consortium except Group Health and Park Nicollet offers such services." Criterion is also planning to work together with at least one

PHOTOGRAPH BY BRUCE BAIRD



"Physicians need to be more visionary about developing new ways to work together."

–Frank Indihar, M.D.

hospital system to provide the inpatient portion of care. "This way a large buyer coalition would know how much it would be spending for inpatient care, too," says Indihar.

According to both Criterion consultant Douglas Shaw and Indihar, a policy of nonexclusivity for participating physicians makes Criterion more appealing to physicians. "The doctors who own and operate Criterion share economic risk and reward through capitation or similar fixed-budget contracts," explains Shaw, a health care consultant and veteran staff member of Twin Cities medical organizations. "They will negotiate jointly for the provision of medical services, but they will remain discrete participants in Criterion and retain substantial control over their daily operations. Individual physicians and medical groups affiliated with Criterion will cooperatively develop protocols for coordinating medical services, quality assurance and utilization review programs, medical outcomes management information systems, and other programs and systems to improve health care delivery." As Shaw and Indihar envision it, Criterion will function principally as a multispecialty delivery system. Its members, however, will still be able to contract with health plans. "We don't want to disrupt those operations," says Shaw.

Moving Criterion from imagination to reality has not been without challenges. Its board overcame a major obstacle at the start of the project by working to eliminate the "us-vs.-them" mentality that existed between primary care doctors and specialists. "It took a lot of talk and give-and-take to move past this barrier," says Indihar. "But I'm confident now that everyone understands what it means to all be in the capitated 'pot' together. No one can afford to take advantage because we are all at risk. If Criterion fails, we all lose."

Indihar and his colleagues also encountered resistance to change among physicians. "It has been difficult to get members of our profession to recognize that the system is changing and that we need to take a leap and try something new," explains Indihar. "Many physicians don't like the changes that are coming. They've tried to ignore them in the hope they'd go away. But by not participating in the process, they find themselves angry with the system

CRITERION continued on page 36

PERSPECTIVES

Malpractice Nightmare

Good Medicine Didn't Protect Me

After 13 years of practice, I was sued. I received THE LETTER just days before my family and I left on our first real vacation since I went into practice. I later learned that I was lucky the sheriff had not come to my house or office and informed me of the suit in front of my children or my colleagues.

An elderly woman had died suddenly two days after I had seen her, and I was being held responsible. My immediate reaction to the lawsuit was twofold. First, I felt that I couldn't let anyone find out about this. Second, because I did not have the stomach to go through a trial, I wanted the insurance company to settle as quickly as possible. I made one phone call to the insurance company and told the agent to do anything to settle the suit. Six weeks later, I received a letter stating that the suit had been settled for $40,000.

Naturally, I began to go over the case again and again. But no matter how many times I reviewed my actions, I reached the same conclusion: I would not have done anything differently. My conscience was clear, but I soon discovered that my medical record will be marred forever, even after I die, because my name has been entered in the National Practitioner Data Bank.

Before the lawsuit, I had been vaguely aware of the Data Bank, but I never gave it much thought, assuming it would only include the names of "bad" doctors. Naively, I believed I would never be sued; I ran a low-risk practice, kept up religiously with journals and conferences, took time to talk to my patients, and was always empathetic.

Soon after I found out about the Data Bank, I received the worst of the bad news. The insurance company told me to obtain a lawyer to deal with the Board of Medical Practice. Up to that time, all I knew about the state board was that it gave out licenses, and occasionally it published in the newspaper a list of doctors who had done some terrible things, like embezzle money or treat patients while under the influence of drugs. I didn't have to worry; I was not one of those bad doctors.

I resisted getting a lawyer. I had done nothing wrong—I had only practiced the best medicine I knew. When I finally became afraid enough to see an attorney, I convinced him to meet me at his home. A physician's visit to his office might raise suspicions in this small town.

I wrote the Board of Medical Practice within two weeks, as requested. That was about a year ago, and I am still waiting for the board's response. In the meantime, my administrator gives me articles about what might happen to someone in my position. Every day I tremble inside as I walk into my office and check my mail for notice of a formal inquisition. I feel like my whole life is frozen. I can't make any plans, and it's hard to be joyful knowing that I might be publicly disciplined. Imagine the impact on a small-town physician's practice if his or her name is published in the Minneapolis *Star Tribune*.

The lawsuit has disrupted my practice and my personal life. When I first found out about the suit, I became obsessed with avoiding another lawsuit. I started spending my every spare moment reading journals and books. The more I knew, the less

ILLUSTRATION BY JANE MJØLSNESS

Editor's Note:

The stress from malpractice litigation can be overwhelming for physicians, as the accompanying Perspectives article illustrates. The MMA's Minnesota Physicians Foundation is developing a Physicians Health Program, which will include resources for physicians experiencing stress caused by litigation. A support group will be organized for physicians who are being sued, and referral resources will be available to physicians who request them. For more information on the Physicians Health Program, contact Roger Johnson at the MMA, 612/378-1875.

. . . .

chance this could happen again. I began to withdraw from my family and friends. I couldn't even share my misery with my husband because he isn't a doctor and couldn't possibly know how I felt.

One morning everything fell apart. The time had come to reapply for staff privileges at the hospital, just as I had done many times before. For the first time I noticed the question, "Have you ever been sued?" I told the CEO that this was no one else's business, and I refused to answer the question. He told me my application would be rejected unless I completed this portion of the form.

Later that day, I began to shake noticeably in front of patients. I came back to the office the next day, and while seeing my second patient, I broke down and cried uncontrollably. I realized then that the experience of the lawsuit and my way of handling it had left me mentally impaired to the point where I was unable to continue my practice. With the help of the clinic's medical director, I sought psychiatric care.

After my "season in hell," I have been able to resume my practice on a limited basis. Of course, things will never be the same. I now look at every patient as a potential lawsuit. I see far fewer patients because the fewer I see, the less chance I have of being sued. I wish I were anything but a physician, and I make the point vehemently any time a starry-eyed student asks me about becoming a physician.

I believe the Minnesota Medical Association could do much to help physicians who are being sued. Had I known then what I know now, the experience would have been far less devastating to my professional and private life. I suggest that the MMA consider the following initiatives:

MALPRACTICE continued on page 36

COVER STORY

The Health Security Act of 1993
A Blueprint for Reform

By Keith L. Halleland, J.D., and Aaron M. Rodriguez, J.D.

ILLUSTRATION BY KATE MUELLER

The Health Security Act of 1993, as proposed by the Clinton administration, is designed to change the American health care system fundamentally by guaranteeing all Americans a basic package of covered health services that can never be taken away. While this is its hallmark reform initiative, the plan will touch upon nearly all aspects of health care delivery—everything from the kind of insurance form used by all Americans to the overall percentage of the GNP spent on health care.

The president's blueprint for reform is outlined in a 239-page document released in early September. The president formally introduced his plan to the nation in a speech to a Joint Session of Congress September 22. The plan is not a simple one. To help legislators understand the plan—and to help sell it—Hillary Rodham Clinton conducted a "health care university" at the nation's Capitol in the days immediately preceding the president's address. As this issue of *Minnesota Medicine* goes to press, a bill has not yet been introduced into Congress with a detailed proposal. Nevertheless, the shape of the administration's plan has already been revealed.

This article reviews the plan's basic conceptual framework, that of managed competition; it describes the plan, and it briefly considers the plan's relationship to Minnesota's developing health care system.

The Managed Competition Concept

Although subject to varying definitions, managed competition basically refers to a health care delivery system in which health care providers participate in one or more competing managed health care plans, such as HMOs, which bear the financial risk of providing coverage to plan enrollees. The plans compete with one another to provide cost-efficient, quality health care services while holding down premiums. A managed competition scheme includes a governmentally established minimum benefits package. Competing health plans provide potential purchasers with comparable data regarding the cost, nature, and outcomes of health care available under each plan to help consumers make informed choices when selecting health plans. Competition, rather than government regulation, is the primary mechanism for holding down health care costs.

In a managed competition scheme, health care purchasing cooperatives buy health care services from health plans. These cooperatives review the cost, outcomes, and other data offered by each plan and negotiate premiums with superior plans, taking advantage of the volume of care purchased to control premiums. Members of each purchasing cooperative may choose to receive health care from any of the plans that have contracted with the purchasing cooperative.

A managed competition scheme also envisions continuous health care coverage for individuals regardless of changes in job, health status, or community rating. Community rating is a measure of the overall risk of providing health care to a purchasing population. Such a rating establishes premiums based on the cost of treating a given population in aggregate—rather than setting premiums based on the cost of treating individuals with unique health care profiles. Finally, a managed competition system seeks to achieve consistent and equitable managed care, facilitate informed purchasing decisions, and encourage the provision of efficient and high-quality health care by health plans.

The Clinton Plan—A Brief Overview

The Clinton administration's plan embodies some elements of the managed competition system just described and departs from it in other respects. The plan guarantees a comprehensive health care benefits package to all Americans regardless of their health or employment status. The plan provides that coverage will continue, uninterrupted, through job changes, relocation, and personal or family health crises. Under the plan, health care consumers pool their buying power into large regional or corporate health alliances. These alliances will negotiate with and purchase health care coverage from health plans that compete on the basis of benefits (that meet or exceed national standards), quality of health care, and access to care. The plan functions as follows: A proposed National Health Board directs and oversees the national health care system, with states administering the plan locally. Regional and corporate alliances negotiate with health plans to purchase health care for large groups of people. The health plans must deliver the guaranteed services. The proposal's most significant departure from managed competition is its call for governmental regulation of the growth of health care expenditures over time.

> "Clinton's plan provides that coverage will continue, uninterrupted, through job changes, relocation, and personal or family health crises."

Broad coverage for all

One of the administration's selling points will be security. The plan calls for providing a permanent benefits package to all Americans, improving health care quality, and controlling the rising costs of health care. Nearly all Americans will contribute to the cost of this program. All employers—even small businesses—will be responsible for contributing to the health coverage of their employees. Individuals and families will be asked to share responsibility for their coverage as well, and subsidies will be available for those in certain low-income categories.

The plan will limit the total out-of-pocket costs Americans incur; allow for a choice of plans and providers; cover prescription drugs; eliminate preexisting conditions limitations; and provide enrollment for all individuals without respect to their employment, financial, or health status. (Covered services are listed in the accompanying sidebar, page 12.) Health care services that are not medically

Services Covered Under the Clinton Plan

- Hospital services
- Physician and other professional provider visits
- Emergency services
- Lab services
- Diagnostic services, e.g., Pap smear, mammogram, cholesterol tests
- Substance abuse treatment
- Mental health treatment
- A broad range of preventive services, including regular checkups and well-baby visits
- Family planning services
- Pregnancy-related services
- Hospice care
- Home health care
- Ambulance services
- Prescription drugs
- Outpatient rehabilitation services
- Durable medical equipment
- Vision and hearing services
- Extended care services
- Preventive dental services for children

necessary or appropriate will be excluded. Such services include private-duty nursing, cosmetic orthodontia and other cosmetic surgery, hearing aids, adult eyeglasses, and contact lenses.

Regional and corporate health alliances

All employees will choose their health plans through a regional purchasing alliance or a corporate alliance. These alliances will negotiate rates with individual health plans to cover their members, they will collect premiums from their members, and they will pay the health plans. The alliances will offer their members a menu of health plans from which to choose.

States will establish regional health alliances serving all state residents. These alliances will pool the bargaining power of their individual members, along with small- and medium-sized businesses. The regional health alliances will represent the interests of consumers and purchasers in buying health care services from the health plans. Each regional alliance will enroll all eligible persons in the geographic area it serves. Regional alliances will be nonprofit corporations, independent state agencies, or agencies of the state executive branch. Federal, state, and local government employees will receive coverage through the regional alliances, as will the self-employed and the unemployed.

Employers with 5,000 or more employees (the number is derived by counting a firm's national employment base), members of plans formed through collective bargaining agreements (such as Taft-Hartley Plans) with more than 5,000 members, and certain rural telephone cooperatives with more than 5,000 employees will have the option of forming a corporate alliance or joining a regional one. A corporate alliance will function like a large employee benefits department, arranging premiums and the delivery of services. These alliances may provide health care through self-funded employee benefits programs or through contracts with health plans. Each corporate alliance must offer a fee-for-service option and at least two other health plan options. This new system is to be in place by January 1, 1997.

The alliances will negotiate to provide care through health plans, which will be required to accept and provide coverage for every eligible person enrolled by an alliance without regard to individual characteristics, health status, or anticipated need for health care. Plans may not terminate or restrict coverage for the comprehensive benefits package for any reason, including non-payment of premiums. Plans may not impose pre-existing conditions limitations. Only plans that enter into contracts with appropriate regional or corporate alliances will be authorized to provide the federally guaranteed benefits package. Finally, each plan will provide a fee-for-service option that allows patients to consult any health care provider. Patients' choice of providers may be subject to reasonable requirements, such as utilization review and prior approval for certain services; however, patients will not be required to seek approval through a designated physician "gatekeeper."

Health system reform

President Clinton's plan seeks to control the cost of health care for individuals and for the nation, reducing the rate of growth of health care expenditures to the level of growth of the gross domestic product by 1997. The administration argues that the plan will do this by increasing competition, reducing administrative costs, and imposing some federal regulation on the rate of growth of health care expenditures. The plan relies on consumer purchasing alliances to reward health plans that provide low-cost, efficient health care.

The plan attempts to improve the quality of care Americans receive. It will set standards and guidelines for practitioners, provide for outcome-based quality assurance, and promote preventive care. The plan seeks to increase access to health care by encouraging the development of health care resources in areas traditionally underserved—rural communities and urban neighborhoods.

The plan seeks to reduce bureaucracy and will begin by providing a uniform national benefits package; adopting a single, standard insurance form; simplifying Medicare and Medicaid requirements; combining health care coverage with workers' compensation and automobile insurance to provide "24-hour coverage," and reducing malpractice liability.

The plan will attempt to significantly reduce fraud and abuse in the system by applying more stringent standards and stiffer civil and criminal penalties directed at providers and institutions that engage in fraudulent practices. The plan also proposes new anti-kickback laws, including new prohibitions against physician prescriptions delivered by institutions in which the physician holds an interest. Finally, the plan will penalize provider fraud and other misbehavior with automatic exclusion from health plans.

To work, the administration's plan depends on amendment of certain federal statutes—including ERISA. To eliminate some of the legal barriers to its implementation, the plan calls for amendments to ERISA that would do the following:

- assure that members of corporate alliances obtain coverage at least equal to the nationally guaranteed package;
- establish fiduciary duties for employers, plan sponsors, and plan fiduciaries;
- apply ERISA pre-emption only with respect to employers and health benefits plans in corporate alliances;
- permit non-discriminatory taxes and assessments on employers or health benefits plans in corporate alliances;
- allow states to require all payers, including health benefits plans in corporate alliances, to reimburse essential community providers.

> "The administration's proposal relies on consumer purchasing alliances to reward health plans that provide low-cost, efficient health care."

Paying for the plan

All employers will contribute 80 percent of the weighted average premium paid to secure health insurance coverage for the regional or corporate alliances serving their employees. In addition, employers may have to pay 1 percent of their payroll to cover the unemployed. An individual (or family) who chooses the basic plan will pay 20 percent of the cost of coverage. More extensive and less extensive plans will be available. The self-employed and unemployed will pay the whole cost of their plans unless they are eligible for assistance based on income.

Plans may offer individuals a low-cost-sharing approach ($10 copay on outpatient services and option or point-of-service option with 40 percent copay) or a high-cost-sharing approach ($200 individual deductible and $1,500 out-of-pocket limit or $400 family deductible and $3,000 out-of-pocket limit), or a combination approach. With the required fee-for-service option, the cost-sharing option provides flexibility for individuals and families in the plans.

The National Health Board

A newly founded National Health Board will administer the plan and have, among other authority, broad powers to set caps on growth in premiums. This governmental regulation of overall costs departs significantly from a managed competition model. The National Health Board may also expand covered services when financial resources permit. The plan specifically contemplates as additional benefits adult preventive dental services, restorative services, and orthodontia when necessary to avoid reconstructive surgery. The seven-member board, appointed by the president and confirmed by the Senate, is charged with overseeing state systems, interpreting and updating the benefits package, setting global budgets, assuring quality management, and supervising the introduction of "breakthrough" drugs into the market. The National Health Board and the Department of Health and Human Services will be jointly responsible for ensuring state compliance with the federal plan.

State responsibility

Clinton's plan requires that state and local governments design and implement health care delivery systems to complement the national framework by providing for or establishing regional and corporate alliances, certifying health plans, assuring quality of care, and undertaking insurance reform. The plan proposes that states begin implementing the new health care system as early as January 1, 1995. Implementation includes enactment of a statute adopting federal program standards, formation of regional health alliances, and imposition of requirements for employers and individuals to obtain coverage. States should complete implementation of the plan by January 1, 1997.

> "The federal plan allows states the flexibility to design programs that best fit their residents' needs."

States will have the primary responsibility of assuring that all eligible individuals are in a plan that delivers the nationally guaranteed benefits package. The plan allows the states flexibility to design programs that best fit their residents' needs, including the option of establishing single-payer systems serving all or a portion of each state. States must submit a plan to the National Health Board demonstrating proper implementation of the national plan. Each state plan must describe how that state will administer subsidies to low-income individuals, certify health plans, regulate plan financial activities, administer data collection and quality improvement programs, and establish and regulate health alliances. The alliances, which must not concentrate racial or ethnic minority groups, socioeconomic groups, or Medicaid beneficiaries, are to be in place no later than January 1, 1997. States must also establish guaranty funds.

Federal Reform and MinnesotaCare

Central to MinnesotaCare, Minnesota's own health system reform law, are integrated service networks (ISNs). ISNs are groups of health care providers responsible for delivering a broad range of health care services for a fixed price per patient. ISNs are similar to the health plans in the proposed federal legislation in that ISNs must keep their total health care expenditures within a fixed global budget and must compete on the basis of quality and price of health care.

ISNs provide a starting point for meeting the requirements of Clinton's proposal, but further amendment to Minnesota statutes will be necessary, since ISNs currently do not face all the same requirements Clinton has proposed for health plans. Additionally, Minnesota statutes do not currently provide for the regional or corporate health alliances required under the president's plan, although such alliances have developed in the private sector. Minnesota, and all other states, will be required to provide for the establishment of the purchasing alliances and will have the flexibility to design and implement these alliances, determining their number, size, and geographic location. The president's proposal requires that all states develop a statutory scheme for these alliances and begin implementation by January 1, 1995.

Even if the Clinton administration were to pass its plan through Congress essentially untouched, a great deal of uncertainty remains for Minnesota's health care system. More than anything else, the way in which Minnesota's legislative process rises to the challenge posed by the proposed Health Security Act of 1993 will shape the delivery of health care in this state for many years. MM

Keith Halleland is chair of the Health Care Practice Group of Popham, Haik, Schnobrich and Kaufman, Ltd., Minneapolis, Minnesota. Aaron Rodriguez, whose practice focuses on health care law, is an associate with the firm.

Editor's Note:

Watch for next month's Minnesota Medicine, *which will include an article by Minnesota Health Commissioner Mary Jo O'Brien analyzing the likely impact of national reform measures on MinnesotaCare.*

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Examples:

1. Benson RC Jr. Laser photodynamic therapy for bladder cancer. Mayo Clinic Proc 1986;61:859-64.
2. Guttormson NL, Bubrick MP. Mortality from ischemic colitis. Dis Colon & Rectum, to be published.
3. Chaterjee SN. Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.
4. Thompson NW. Thyroid and parathyroid. In: Welch KJ, Randolph JG, Ravitch MM, et al., eds. Pediatric Surgery, 4th ed. Chicago: Year Book Medical, 1986: vol 1, 522-33.

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Current and Future HIV/AIDS Clinical Research

HIV-Related Therapy Improving—Slowly

Keith Henry, M.D., and Kay Schwebke, M.D.

ABSTRACT

More than 300,000 cases of AIDS have been reported in the United States since 1981. Despite major scientific advances and much effort, the benefits of treatment have been modest. The variable nature of the human immunodeficiency virus (HIV) and the complexity of the immune system are the major obstacles to advances in treatment. This article summarizes the current state of clinical research in pursuit of improved HIV therapy and takes a look into the future of anti-HIV therapeutics. It also provides an overview of HIV clinical research underway in Minnesota. Research efforts to improve therapy of HIV-induced immune deficiency will involve three strategies: better anti-HIV drugs and combinations of drugs aimed at slowing the replication of HIV, immune-based therapies intended to stimulate the immune system, and multiple opportunistic pathogen prophylaxis strategies to prevent HIV-related opportunistic infections. This approach will involve considerable cost and polypharmacy. Improvements in HIV/AIDS therapy are likely to occur incrementally, but the endeavor needs widespread support from patients, physicians, and the public. For now, the best strategy is prevention, which is where physicians can have the greatest impact on the epidemic.

Efforts to develop improved treatment for HIV infection are at a crossroad. Current HIV-related therapy has much to offer patients but still falls far short of the goal—a cure. Unfortunately, a cure for HIV/AIDS is nowhere on the horizon. The HIV research community is shifting its focus with the recognition of several key points. First, active HIV replication clearly occurs throughout the entire course of HIV infection and is centered in the lymphoreticular system.[1,2] Second, HIV has been shown to have a high mutation rate, which means the virus rapidly becomes resistant to many of the drugs currently being used or studied.[3-6] Third, recent clinical studies have demonstrated all too well the limited benefit of current therapy, so new drugs and approaches are desperately needed.[7-9] Finally, impressive scientific advances in understanding the molecular biology of HIV have not translated into clinical benefit. In this article, we outline the clinical research efforts underway in Minnesota and provide an overview of the types of drugs and treatment strategies currently being studied and that will be studied in the immediate future.

HIV Clinical Research in Minnesota

Thousands of compounds have been screened in the laboratory for anti-HIV activity. Taking promising in vitro results from the test tube to the patient is the objective of clinical research. Many compounds have shown in vitro anti-HIV effect but have had disappointing clinical results. (A brief summary of the false leads researchers have pursued appears in Table 1.) Because the natural history of HIV infection can be quite long (10+ years), investigators are attempting to correlate clinical outcome with virologic outcome in order to determine, at an early stage of clinical studies, whether the drugs being tested have a demonstrable and sustained anti-HIV effect. The University of Minnesota has two laboratories (described in Table 2) that study HIV isolates obtained from patients' blood or tissues, which are crucial for this type of laboratory-clinical correlation.

Minnesota's primary site for clinical studies of promising anti-HIV compounds or strategies (as well as for the treatment or prophylaxis of HIV-related infections) is the AIDS Clinical Trials Unit (ACTU) at the University of Minnesota, with subunits at St. Paul-Ramsey Medical Center and Hennepin County Medical Center. These studies are funded by the National Institute of Allergy and Infectious Diseases. Since 1987, this network has enrolled more than 600 patients in clinical studies. (For information on whom to contact about ACTU studies and a list of active and currently recruiting studies, see Table 3.)

Other clinical research efforts also are underway in Minnesota. (Table 4 lists sites and active studies. The studies being conducted change often, so we encourage interested physicians and patients to call for more information.)

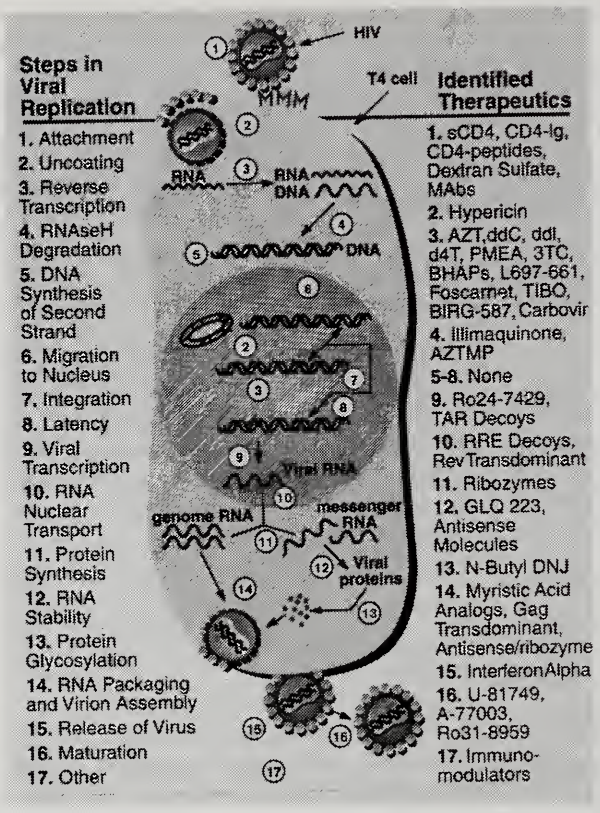
Anti-HIV Therapeutics

Treatment of HIV infection to date has focused on the inhibition of the retroviral enzyme reverse transcriptase (RT). All the FDA-approved antiretroviral drugs (zidovudine, zalcitabine, and didanosine) act as RT inhibitors. Many steps in the HIV life cycle (see Figure) may be targeted to prevent viral replication.[10] Because

Table 1

Problems in anti-HIV drug development

Inadequate in vitro data prior to clinical studies, e.g., AL-721, peptide T, compound Q
Insufficient pre-clinical toxicity data
In vitro studies don't predict in vivo activity, e.g., rsCD4, CD4-IgG
Pharmacokinetic considerations, e.g., oral alpha-interferon, hypericin, dextran sulfate
Too rapid escalation to maximum tolerated doses, e.g., suramin, ZDV, ddI, ddC
Development for political reasons, e.g., oral interferon
Theory behind development later refuted, e.g., *tat* inhibitors, convergent combination therapy
Very rapid emergence of resistance, e.g., entire classes of resistance
Parenteral therapy and/or extreme high cost, e.g.,foscarnet, interferon, HIVIG, immune reconstitution


HIV
T4 cell
Steps in Viral Replication
1. Attachment
2. Uncoating
3. Reverse Transcription
4. RNAseH Degradation
5. DNA Synthesis of Second Strand
6. Migration to Nucleus
7. Integration
8. Latency
9. Viral Transcription
10. RNA Nuclear Transport
11. Protein Synthesis
12. RNA Stability
13. Protein Glycosylation
14. RNA Packaging and Virion Assembly
15. Release of Virus
16. Maturation
17. Other
RNA
RNA
DNA
DNA
Viral RNA
genome RNA
messenger RNA
Viral proteins
Identified Therapeutics
1. sCD4, CD4-Ig, CD4-peptides, Dextran Sulfate, MAbs
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5-8. None
9. Ro24-7429, TAR Decoys
10. RRE Decoys, Rev Transdominant
11. Ribozymes
12. GLQ 223, Antisense Molecules
13. N-Butyl DNJ
14. Myristic Acid Analogs, Gag Transdominant, Antisense/ribozyme
15. Interferon Alpha
16. U-81749, A-77003, Ro31-8959
17. Immuno-modulators

Figure—HIV life cycle. Each step in the HIV life cycle is a potential target for interruption by therapeautic drugs.

Reprinted with permission from Cohen J. AIDS research: the mood is uncertain. Science 1993;260:1254-65. © American Association for the Advancement of Science.

the actual clinical benefits of the available anti-HIV drugs are so modest (attributable in part to mutation of the RT genome to confer resistance to treatment), researchers remain intensely interested in studying new drugs or combinations of drugs.

RT inhibitors continue to dominate clinical antiretroviral studies and include nucleoside analogues, such as zidovudine (AZT), didanosine (ddI), zalcitabine (ddC), d4T, deoxyfluorothymidine (FLT), 3-thiacytidine (3TC), and carbovir. Nonnucleoside RT inhibitors (NNRTIs) include the L drugs, BHAP drugs, and TIBO-like drugs. The NNRTIs (such as nevirapine, which is being studied at the University of Minnesota ACTU) bind directly to active sites in the HIV RT and inhibit DNA polymerase. Unfortunately, mutations in the RT genome develop rapidly, conferring drug resistance when these drugs are used as monotherapy. The nucleoside and NNRTIs appear to be additive or synergistic when combined, so clinical trials involving multiple drugs are a focus of the AIDS Clinical Trial Group (ACTG) at the University of Minnesota and subunits (Tables 3 and 4).[11]

Recent enthusiasm about the potential of drugs inhibiting the HIV *tat* protein diminished with the discovery that *tat* is not essential for HIV replication, and the disappointing results of a phase I trial were presented in Berlin at the Ninth International Conference on AIDS in June 1993.[12] Another promising target is the enzyme HIV protease. This essential protein processes precursor viral core and polymerase proteins into infectious virions.[13] Protease inhibitors interrupt this process and are particularly attractive since they act at a postintegration step and can inhibit HIV replication in chronically infected cells. Two such inhibitors (developed as designer drugs using computer-assisted modeling), A-80987 and Ro-31-8959, are now in clinical trials. Protease inhibitors appear to be additive or synergistic with AZT, ddI, and ddC and may be useful in combination regimens.[14]

Current approaches to antiretroviral therapy have been limited by development of drug resistance and toxicity. The history of anti-HIV therapeutics is characterized by false leads and frustrations (Table 1). HIV/AIDS clinical research has been consistently humbled by HIV and our lack of knowledge about immunology. For the near future, we don't expect to find any single drug that will work as a "magic bullet" against HIV. Research emphasis will be on combination therapies that act on different cell types and minimize resistance. These regimens may involve drugs that act on the same (convergent) or different parts of the HIV replication cycle. Investigators and patients should expect gains in clinical knowledge to occur in small steps, not major leaps. Critical to this effort will be a streamlining of large clinical studies (e.g., use of large simple trials) or the identification of better surrogate laboratory markers that correlate with clinical endpoints (e.g., viral load assessed by polymerase chain reaction technologies).

Immune-Based Therapies

The increased awareness about the limits of anti-HIV-focused therapy has heightened interest in immune-based therapies (IBTs)—treatments designed to strengthen the immune system directly. A recent survey of top AIDS researchers published in *Science* asked, "What are the major questions standing in the way of a cure for AIDS?"[10] The responses, summarized in Table 5, clearly illustrate the need for better IBTs. Space limitations prevent a long discussion of IBTs here, but approaches being considered are listed in Table 6.

Several IBTs merit description. The Berlin AIDS meeting highlighted issues related to the immune system in HIV infection. Jay Levy of the University of California-San Francisco espouses the view that T-suppressor cells (CD8+) may play a key role in controlling HIV infection in vivo. Obviously, the T-helper cell (CD4+) is a primary target for HIV, and the decline in CD4+ cells is a hallmark of progressive immune deficiency. Efforts to expand the CD4+ and/or CD8+ populations through cell transfers (whereby lymphocytes are collected, cloned or expanded, and then reinfused), cryopreservation of lymphocytes, and gene therapy (whereby a protein that makes HIV-resistant CD4+ cells is inserted using a viral vector) are planned or already underway. Perhaps the most controversial IBT strategy involves the use of therapeutic vaccines (Table 6). Studies of long-term survivors of HIV infection and of the immune systems of persons highly exposed to HIV but not infected (e.g., prostitutes or partners of HIV-infected persons) have increased hope that stimulation of the immune system by key HIV antigens will improve clinical results. Therapeutic HIV vaccines are of two general types: subunit vaccines (involving specific components of HIV, such as the gp160 protein) or whole-killed or attenuated HIV. Studies planned or underway should better define what role the current generation of HIV vaccines may have in the treatment of HIV/AIDS.

Treatment and Prophylaxis of Opportunistic Infections

Since much of the morbidity and mortality resulting from HIV-related immune deficiency is related to opportunistic infections, finding better methods to treat and prevent these infections is a priority. Unfortunately, the spectrum of infections is very wide and includes parasites (e.g., *Pneumocystis carinii*, *Toxoplasma*, and *Cryptosporidium*); fungi (e.g., *Candida*, *Cryptococcus*, and *Histoplasma*); bacteria (e.g., *Mycobacterium avium-intracellulare*); and virus-

Table 2

HIV laboratory research, University of Minnesota

HIV Laboratory

Henry Balfour, M.D., and
Alejo Erice, M.D.
612/626-5670 or
612/626-0920
Call with interesting transmission or progression issues.

Research focus:

- Quantification of HIV load in blood
- Studies of HIV virulence
- Resistance of HIV to drugs (phenotypic/genotypic)
- Correlation of anti-HIV treatment and viral markers

Microbiology Laboratory

Ashley Haase, M.D.
612/624-4442

Research focus:

- Identification of HIV in tissues, e.g., brain or lymph nodes
- Quantification of HIV in tissues
- Pathogenetic mechanisms

Table 3

NIH-supported AIDS Clinical Trials Group (ACTG) studies underway at the University of Minnesota and at Hennepin County Medical Center and St. Paul-Ramsey Medical Center subunits

Open to enrollment

ACTG 193—A randomized, double-blind, four-arm study comparing combination nucleoside, alternating therapy, and triple therapy for treatment of advanced HIV disease.

ACTG 196—A prospective, randomized, comparative study of clarithromycin vs. rifabutin vs. the combination of clarithromycin and rifabutin for the prevention of MAC bacterium or disseminated MAC disease in HIV-infected patients with CD4 counts≤100.

ACTG 231—Phase I open-label study of the safety, tolerance, and pharmacokinetic interactions of combination ddI and ribavirin in HIV-1 positive individuals.

Closed to enrollment/patients being followed

ACTG 019—Safety and efficacy of ZDV for asymptomatic HIV-infected individuals.

ACTG 175—A randomized, double-blind phase II/III trial of monotherapy vs. combination therapy with nucleoside analogues in HIV-infected persons with CD4 counts between 200 and 500.

ACTG 194—A study to evaluate the short-term clinical and virologic significance of ZDV resistance.

ACTG 241—A comparative study of a combination of ZDV and ddI vs. a combination of ZDV, ddI, and double-blinded nevirapine.

Contacts

University of Minnesota, 612/625-1462
St. Paul-Ramsey Medical Center, 612/221-1280
Hennepin County Medical Center, 612/347-2705

Table 4

Non-ACTG clinical studies/Minnesota sites

Park Nicollet Medical Center
Scott Strickland, M.D., 612/927-3322

Studies:

- Efficacy of HIB Vaccine in HIV+ Patients
- MAI Prophylaxis

St. Paul-Ramsey Medical Center
Keith Henry, M.D., 612/221-1280

Studies:

- Randomized Open Label Study of Alternative Treatment Combinations of ddC and AZT
- Comparison of Two Doses of Itraconazole vs. Fluconazole for the Treatment of Candidiasis in the Mouth
- Comparative Trial of 256U87 and Acyclovir for Suppression of Anogenital Herpes Infection
- HIV+ Women Study
- Minnesota One, Virological Study of People Who Have Seroconverted to HIV+ in the Past Year

---

University of Minnesota HIV Clinic—call for study information
Frank Rhame, M.D., 612/625-4680
Carol Olson, M.D., 612/625-4680

Hennepin County Medical Center—call for study information
Ronald Schut, M.D., 612/347-2705
Margaret Simpson, M.D., 612/347-2705

Other Areawide Studies

D4T Parallel Track Program
The objective of this program is to make d4T (anti-HIV drug) available to patients with advanced HIV disease and to determine the safety and efficacy of two doses of the drug.

Criteria:

- CD4<300
- Inability to tolerate AZT and ddI

Available sites:

- University of Minnesota, 612/626-2336
- Clinic 42, 612/863-5336
- St. Paul-Ramsey Medical Center, 612/221-1280
- The Doctors, 612/824-1772

es (e.g., herpes simplex/zoster and cytomegalovirus).

Parasitic infections

The treatment and prevention of *Pneumocystis carinii* pneumonitis (PCP) remains a priority. Recent studies have suggested that trimethoprim-sulfamethoxazole (TMP-SMX), when tolerated, has greater efficacy than aerosolized pentamidine (AP) for the prevention of PCP.[15,16] More effective non-sulfa oral drugs are urgently needed to improve PCP-related therapy. Although atovaquone (Mepron), an oral nonsulfonamide, has been licensed for treatment of mild PCP, its absorption is erratic, so researchers are working to develop a better formulation for study both as therapy and prophylaxis. Large trials comparing dapsone to TMP-SMX and/or AP for the prevention of PCP are underway.

Azithromycin and atovaquone are being studied as possible therapies for cerebral toxoplasmosis. Preliminary data suggest that TMP-SMX, in doses used for PCP prophylaxis, may also protect against toxoplasmosis. For individuals who are intolerant to sulfonamides, the best second therapy is not clear. According to a letter sent to physicians from Burroughs Wellcome Co. on August 10, 1992, studies conducted by the Community Programs for Clinical Research on AIDS have demonstrated a higher death rate for recipients of low-dose pyrimethamine versus placebo. Unacceptable adverse effects have also been demonstrated in patients receiving clindamycin for prophylaxis.[17] Clearly, more studies with newer drugs need to be done. Efforts to find therapy that is consistently effective against Cryptosporidia and Microsporidia (both associated with severe diarrhea syndromes) have been disappointing. Studies are underway to determine the benefit of therapy with paramomycin and albendazole, but we don't expect those agents to be major advances.

Fungal infections

The most significant issues involving HIV-related fungal infections concern prophylaxis. Uncontrolled studies and clinical observations have suggested that the incidence of fungal infections (particularly in patients with CD4 counts<100/mm^3) can be reduced by the use of systemic antifungal agents such as fluconazole.[18] The results of large controlled trials addressing that issue are expected to be available within the next year. Major concerns regarding the widespread use of systemic antifungal agents include their cost and the emergence of resistant strains. Numerous studies involving newer azole oral antifungal agents (e.g., itraconazole in the treatment and prevention of fungal infections) will better define their role.

Mycobacterial infections

In the United States, HIV-infected patients with CD4 counts<100/mm^3 are at high risk for developing bacteremia and disease due to *Mycobacterium avium-intracellulare* (MAI or MAC).[19] Several studies have shown that use of the oral drug rifabutin can significantly reduce the rate of MAC bacteremia.[20] However, research has not yet shown whether reducing MAC bacteremia results in lower

Table 5

Key HIV-related questions

A cure: the top 10 questions

1. What causes the immune system collapse seen in AIDS?
2. How can HIV replication be controlled?
3. What are the correlates of protection?
4. Can combination therapy overcome resistance?
5. What are the best targets in the viral life cycle for Rx?
6. Will immunotherapies like vaccines and cytokine treatments work?
7. Can drugs target HIV in reservoirs like the lymph nodes?
8. How is HIV transmitted sexually, maternally, and intravenously?
9. Can the immune system be reconstituted after infection?
10. What are the best surrogate markers for evaluating Rx?

A vaccine: the top 10 questions

1. What are the correlates of human protection?
2. How can viral variation be overcome?
3. What is the best way to present viral antigens to the immune system?
4. What are the key viral antigens that confer protection?
5. Are "old-fashioned" attenuated and killed virus approaches better?
6. How is HIV transmitted?
7. Is mucosal immunity critical to preventing infection?
8. What is the pathogenesis of HIV?
9. Should AIDS vaccines aim to prevent infection or disease?
10. Can better animal models be developed?

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Table 6

Immune-based therapies

Cytokine Modulation

Inhibition of tumor necrosis factor
  -Pentoxifylline
  -Thalidomide
Interleukin-2 infusions

T-suppressor cell activity

Cimetidine

Cell transfer

Cloning and re-infusion of T-helper cells
Cloning and re-infusion of primed T-suppressor cells
Bone marrow transplantation

Cell freezing

Therapeutic HIV vaccines

Whole-killed or attenuated HIV
HIV subunit vaccines

Gene therapy

morbidity and mortality. Investigators have demonstrated considerable interest in better defining the potential benefit of rifabutin or the newer macrolides with anti-MAC activity (azithromycin and clarithromycin) in the treatment and prophylaxis of MAC-related disease. ACTG 196 is a randomized, double-blind, comparative study investigating the safety and efficacy of rifabutin versus clarithromycin versus rifabutin plus clarithromycin in the primary prophylaxis of MAC bacteremia and disseminated disease. Again, issues of cost and the emergence of resistant strains are significant concerns. Tuberculosis is the other mycobacterial disease receiving research attention. The primary focus of HIV-related TB research is to define populations at risk and determine how best to provide prophylaxis with such drugs as isoniazid. Efforts in this area are hampered by the high rate of anergy seen in the HIV-infected population and the emergence of highly resistant strains of TB.

Viral infections

Cytomegalovirus (CMV) is the major herpes virus that causes severe morbidity and mortality in AIDS patients. Although two drugs are available for treatment of CMV disease (ganciclovir and foscarnet), both are expensive, require parenteral use, and cause considerable toxicity. CMV research is primarily directed at developing oral drugs active against CMV for use in treatment and prophylaxis. The University of Minnesota is involved in numerous trials involving anti-CMV drugs, including foscarnet and newer agents. Treatment of another viral pathogen frequently seen in HIV-infected patients, herpes simplex virus (HSV), is sometimes hampered by poor oral absorption of oral acyclovir. The St. Paul-Ramsey Medical Center HIV Program is currently enrolling patients in a comparative trial of 256U87 (an acyclovir pro-drug) versus acyclovir for the suppressive treatment of ano-genital HSV infection in HIV-infected patients with CD4 counts>100/mm^3.

Another viral pathogen, the JC virus, is linked to the condition called progressive multifocal leukoencephalopathy (PML) usually seen in patients with advanced AIDS. The search for effective treatment for PML continues.

MOPPS Therapy

The permanent and severe immune suppression that patients with AIDS experience is one of the unique and daunting features of AIDS. As discussed above, strategies to prevent the most common HIV-related infections are evolving rapidly. Because so many and such a variety of infections are involved, investigators are studying ways to prevent multiple infections at the same time. They are conducting multiple opportunistic pathogens prophylaxis studies (MOPPS) to define patient tolerance and the benefits of treatments, many of which are costly and call for a high

Table 7

Actual medication/ supplement list for a patient with $CD4<50/mm^3$

- d4T—four capsules twice daily (high/low dose study)
- Acyclovir—800 mg, four times daily
- Fluconazole—one 100 mg tablet daily
- Biaxin—one 500 mg tablet daily
- Aerosol Pentamadine—twice per month (1st & 15th)
- Neupogen—one 300 mcg injection weekly (Sundays)
- Interferon—three 6Mu injections weekly (MWF)
- Seldane—one 60 mg tablet daily
- Ansaid—as needed for muscle pain
- Chinese Herbs (Resist)—two 750 mg capsules, four times daily
- Echinacea Herb—one 380 mb capsule, four times daily
- Multi-vitamin—one tablet daily
- Vitamin C-E-Zinc-Lysin Spray—two sprays, four times daily
- Vitamin B12 Spray—two sprays, four times daily
- Vitamin B Complex—one tablet daily
- Vitamin E—one 400 mg capsule daily
- Beta carotene—25,000 mg, three times daily
- Co-Q10+—one tablet daily
- Acidophilus Bifido—one capsule daily
- Aspirin—one 325 mg tablet daily
- Metamucil—two tsps in water daily
- Lacticare—HC 2.5% ointment as needed for rash
- Synalar—0.025 PC ointment as needed for psoriasis
- Anusol ointment—as needed for anal tissue burning
- Massage therapy—three sessions per week
- Chiropractic adjustment—two times per week

degree of polypharmacy. One of the first of these studies in the United States is just concluding at the St. Paul-Ramsey Medical Center HIV Program.[21] We have shown that patients can generally take and tolerate multiple anti-OI drugs, but MOPPS therapy combined with nucleoside anti-HIV agents does not adequately protect against the numerous complications seen in persons with CD4 counts<100/mm^3 (e.g., wasting syndrome, lymphoma, and particularly CMV disease). Until the immune system can be reconstituted, MOPPS strategies will play an increasingly important role in the care of persons with AIDS.

Conclusion

Treatment of HIV/AIDS has evolved quickly over the last decade and promises to continue to change rapidly as researchers pursue the treatment leads described in this article. But despite the impressive science underlying the treatment research now underway, major advances in HIV therapeutics do not appear imminent. Our observations suggest that the introduction of PCP prophylaxis and anti-HIV therapy, e.g., zidovudine, has resulted in an additional two years of health for the average person treated "early" for HIV infection. Although much variability exists in the natural history of treated or untreated HIV infection, the current treatment picture remains discouraging.

Hopes for major breakthroughs in treatment may be unrealistic. More likely, treatment for HIV/AIDS will develop incrementally and all too slowly for many patients to benefit. We are concerned that much of the anti-HIV drug development process involves similar drugs that will not significantly advance therapy. Treatment of advanced HIV disease will likely involve a three-pronged approach: anti-HIV therapy to slow down HIV replication, IBTs to try to restore the immune system, and MOPPS to protect against infections related to immune deficiency. It remains unclear whether the promises of IBTs will be realized. The role of MOPPS therapies also needs further study since it is not clear whether they actually improve survival.

The future of HIV/AIDS therapy is uncertain. HIV/AIDS therapeutics have evolved into a complex, polypharmacologic approach that is very costly and toxic. Although HIV/AIDS care has shifted from a hospital-based to an ambulatory-centered system, the costs of care were recently estimated to be $119,000 per patient from diagnosis to death.[22] The use of combination anti-HIV therapies, IBTs, MOPPS, symptom-based drugs, and often alternative therapies involves an unprecedented degree of polypharmacy. It is not unusual for patients in the advanced stages of HIV disease to be taking 20 to 30 pills per day (Table 7). Sorting out which therapies are beneficial becomes a difficult challenge for researchers. In the meantime, there is one clear message for primary care and specialty physicians: prevention is the most cost-effective approach to this problem and needs to be the top priority. For now and for the foreseeable future, the treatment of HIV/AIDS will remain a daunting task but one that clearly can benefit individual patients. The clinical research effort will continue to need the widespread support of patients, the medical community, and the public if it is to succeed in its goal—significantly improved survival among the growing population of HIV-infected patients. **MM**

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Kay Schwebke is a staff member of the Infectious Disease Section at St. Paul-Ramsey Medical Center and is a medicine and infectious disease consultant at the River Valley Clinic in Northfield, Minnesota. Her special interests are management of HIV infection in women and clinical research for new anti-HIV therapies.

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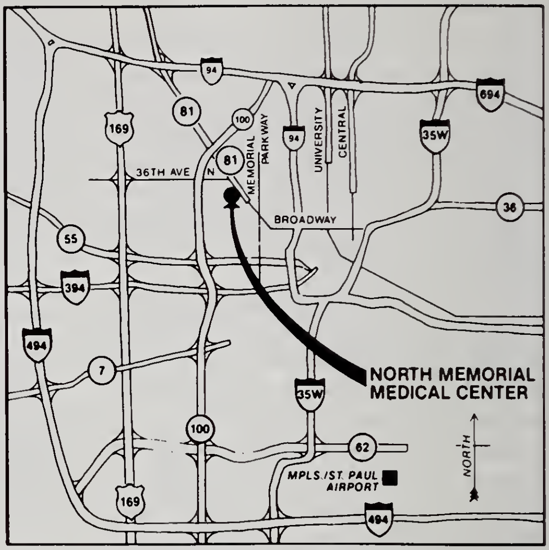
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AMERICAN CANCER SOCIETY

Counseling Patients for Routine HIV Testing

AMA Guidelines

MMA Committee on Ethics and Medical-Legal Affairs

With the growing prevalence of HIV in certain areas of the United States, some clinics have begun or are considering routine HIV blood testing for all patients. In Minnesota, no legislation exists authorizing physicians to test patients without consent, and recently published guidelines by the American Medical Association recommend obtaining consent prior to routine HIV testing and providing pretest and posttest counseling.* This article summarizes the AMA guidelines for routine testing.

The AMA's recently published "HIV Blood Test Counseling Physician Guidelines," 2nd edition, endorse routine testing based on such considerations as seroprevalence in the geographical area, procedures commonly performed, and regional attitudes. The AMA emphasizes that knowledge of a patient's serostatus cannot and should not substitute for universal observance of infection control practices, and further states that the success and fairness of any routine testing policy hinges on careful observance of patient confidentiality.

The AMA guidelines define routine testing as "testing conducted as a matter of policy, independent of each patient's individual risk status." In such situations, the patient is seeking medical attention for a condition other than HIV. (When HIV infection is a differential diagnosis, comprehensive, individualized pretest and posttest counseling is necessary as set forth in the same guidelines.)

> "Fairness of any routine testing policy hinges on careful observance of patient confidentiality."

According to the AMA, pretest procedures for individuals receiving HIV blood testing as part of routine screening should include, as a minimum, information about the following:

- HIV infection, how it is transmitted, and how it is prevented;
- the HIV blood test and the possible results of testing;
- the types of behavior that place individuals at risk for HIV; and
- how to request complete pretest counseling if the patient is aware of personal risk factors or desires more information.

All of this information may be provided in a group format, through a pamphlet distributed to patients, or one-on-one with a health care professional.

The AMA's guidelines for *routine testing* do not offer specifics on what to include in patient materials. However, physicians can use the suggestions included in the AMA's guidelines for differential diagnostic testing listed below.

HIV Infection, Transmission, and Prevention

Educational materials or physician-patient discussions about HIV infection, transmission, and prevention should include the following information:

HIV infection

- Acquired immunodeficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV);
- HIV infects the body and slowly damages the immune system, weakening the body's defense against infections, cancers, and other diseases;
- Most people who are infected with HIV have no symptoms but are capable of transmitting the infection to others;
- Medical therapies are now available for HIV-infected people, which may delay the progression of HIV disease and help prevent the development of HIV-related conditions;
- There is no known cure for HIV, which is generally believed to be inevitably fatal.

HIV transmission

- HIV is transmitted through exposure to blood, semen, and vaginal secretions during sexual intercourse;
- HIV is transmitted through exposure to blood that occurs when syringes, needles, or other "works" are shared, including tattoo needles;
- HIV can be transmitted through the exchange of body organs and body fluid, including organ donation, sperm and ova donation, transfusion of contaminated blood or blood products (generally before 1985), and commingling of blood in rituals, e.g., "blood brothers";
- Infants can be infected with HIV perinatally or through breast-feeding.

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* The guidelines reflect policies adopted by either or both the AMA House of Delegates and the AMA Council on Ethical and Judicial Affairs (CEJA). Some positions of the AMA House differ from CEJA's. Physicians should refer to AMA's "Policy Compendium" and CEJA's "Code of Medical Ethics: Current Opinions" to review the differences between the two.

HIV prevention and risk reduction

- Abstinence or mutual monogamy between partners known to be uninfected provide the only sure protection against the sexual transmission of HIV;
- The more sexual partners one has, the greater the risk of exposure to HIV;
- Sex with individuals known to have HIV or known to have engaged in high-risk behaviors increases the risk of contracting HIV;
- Properly used latex condoms can provide protection against HIV transmission during sexual intercourse by minimizing direct contact with the body fluids of one's partner;
- Sexual activities that can cause cuts or tears in the lining of the rectum, on the penis, or in the vagina should be avoided;
- Sharing needles, syringes, or works with anyone should be avoided. Proper cleaning of these items can reduce risk;
- In countries where adequate infant formulas are readily available, such as the United States, HIV-positive mothers should not breast-feed;
- Rituals involving the commingling of blood should be avoided;
- Tattoos should only be applied with sterilized needles;
- Women who know they are HIV-infected or are unsure of their serostatus may transmit HIV infection to their unborn child.

The HIV Blood Test

AMA guidelines say that patients must understand the meaning of possible HIV test results. If a person tests positive on a confirmatory test such as the Western Blot, he or she has been infected with HIV and is capable of transmitting that virus to others. A negative antibody test probably means that no infection is present. It does not, however, suggest immunity against the virus that causes AIDS. Although seronegativity means that no antibodies were found at the time of testing, it is possible that the person has been infected but has not yet produced antibodies.

There is a slight chance of false-positives on the HIV test series. Indeterminate results are more likely and generally present as a nondiagnostic band pattern on the Western Blot. If indeterminate results are obtained, an alternative confirmatory test may be conducted on the original serum sample. If a second confirmatory test is also indeterminate, the physician must decide whether to test a second specimen based on the patient's history. The second sample is usually drawn three to six months after the original sample.

In addition, the AMA guidelines recommend that physicians or health care facilities inform patients of the potential risks that arise when an individual is identified as HIV positive. Discrimination against HIV-infected individuals is prohibited by federal law. Nonetheless, reports of discrimination in employment, housing, insurance, and interpersonal relationships persist. Further, many states now mandate reporting of HIV-positive persons for the purpose of confidential contact tracing. Minnesota requires physicians to report HIV-infected individuals to the Minnesota Department of Health under the communicable disease rules.

Consent

Consent for routine HIV testing may be provided as part of the general consent for treatment. When consent for routine testing is incorporated into a general consent form, a line that specifically mentions HIV blood testing is necessary. Physicians must be aware of any state or federal laws that may lead to disclosure of test results to anyone other than the patient, and they must inform their patients of these laws as part of the consent process. As mentioned above, in Minnesota, a report will be made to the Department of Health. Additionally, prior patient consent is generally needed before the release of any medical record information, although exceptions exist.

Posttest Procedures

The AMA guidelines for routine testing recommend that physicians or health care facilities inform individuals whose routine test results are negative. Such notification may be made in writing and should preferably include HIV educational information, particularly about risk reduction. Patients also may benefit from referral to a community source for further information about HIV.

The AMA's guidelines say that any patient whose routine test results are positive must receive face to face, comprehensive posttest counseling. Some patients may suspect they are HIV positive, but for many, the news will come as a complete surprise. Posttest sessions in such cases may be difficult for patient and physician alike.

Special attention should be paid to the psychological state of patients identified as HIV positive. They are unlikely to absorb much of the information offered so soon after learning of their serostatus. In many cases, a second posttest session would be highly beneficial. Special planning may be necessary to provide for social and emotional support needs of patients diagnosed during the course of routine testing.

The AMA's posttest counseling guidelines for diagnostic HIV testing offer the following additional recommendations.

Test results should be disclosed at the very beginning of the posttest session. Patients are often anxious to learn the results. After the results are disclosed, the patient should be allowed to express feelings. Repeating the patient's words and labeling his or her feelings can be helpful at this time.

It may be difficult to tell patients they are seropositive. A simple statement such as, "Your tests show that you have the virus," is sufficient. While being straightforward and honest, physicians should describe therapies available to the patient, stress the difference between infection and HIV disease, provide statistics about disease progression, and highlight promising research.

The physician should make sure the patient understands the test results and help him or her assimilate the information. The physician might ask, "Now that you know you are HIV positive, what does this result mean for you?" In the ensuing conversation, the physician can correct misunderstandings and reiterate risk-reduction information.

The HIV-positive patient must be counseled again on how to avoid infecting others. Seropositive individuals must understand that they are infectious for life, even if they have no symptoms of HIV disease or are undergoing active treatment. They should be told the following:

- Do not donate blood, semen, or body organs;
- Employ "safer sex" practices, in which no exchange of body fluids occurs;
- Do not share personal hygiene items, such as razors or toothbrushes;
- Do not share needles or syringes;
- Inform your physicians, dentists, and other health care workers of your serostatus.

Physicians should encourage HIV-positive patients to notify sexual partners and needle contacts of their serostatus and urge them to seek HIV blood testing. In some states, the local health department notifies partners. This is true in Minnesota in certain cases. Patients may wish to notify personally individuals they may have infected. Physicians and patients may choose to work together to notify individuals at risk. In some cases, a physician may be ethically obligated to notify a third party at risk if the patient refuses to do so.

Seropositive patients may react with disbelief, anger, fear, guilt, or self-recrimination. In addition to support from the physician, these patients may benefit from counseling hot lines, HIV support groups, or individual psychotherapy. Some individuals who test positive for the HIV antibody may develop clinical depression or may evidence suicidal thoughts or attempts. If a physician is concerned about a patient's safety, psychiatric referral and treatment are essential.

The posttest session should also include an assessment of the patient's commitment to altering high-risk behavior. Physicians can work with patients to promote behavior change by reiterating routes of transmission and emphasizing methods of reducing risk. Problem solving with the patient about ways to change behavior may be helpful.

In summary, essential elements of the posttest session include:

- providing the test results;
- allowing the patient to express feelings and reactions;
- assessing the patient's understanding of the test results;
- reviewing routes of transmission and risk reduction;
- assessing the patient's psychological condition and recommending psychiatric and support services as needed;
- assessing risk behavior and commitment to behavioral change that will reduce risk of HIV transmission;
- helping the patient plan ways to inform others who may have been exposed to HIV;
- arranging for medical follow-up as appropriate. **MM**

This article is adapted from "HIV Blood Test Counseling Physician Guidelines," 2nd edition, with permission. © 1993 American Medical Association. For a complete copy of the AMA's guidelines, call Eltha Thomas at the AMA, 312/464-5563.

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CLIA '88 Laboratory Inspections

Prepare and Survive

Julie A. Gayken, M.T., and Jerry W. Bennington Sr., M.T., M.B.A.

Relief from the regulatory burdens of CLIA '88 may be on the horizon with Clinton's national health system reform efforts, but in the meantime, CLIA is reality. Preparations for CLIA inspections may seem complicated and burdensome, but laboratories may also find the process valuable. Preparing for an inspection provides an opportunity to improve quality of service and to educate employees.

Compliance with the Clinical Laboratories Improvement Act of 1988 (CLIA '88) is determined and monitored through on-site inspections (or surveys) conducted by the Health Care Financing Administration (HCFA). The Minnesota Department of Health Survey and Compliance Section began CLIA inspections of previously unregulated laboratories in April, according to Robert Gunkle, assistant section chief. An alternative to CLIA certification is accreditation through the Commission on Office Laboratory Accreditation (COLA). COLA has plans to place a full-time surveyor in Minnesota to begin on-site surveys for the state's 297 COLA laboratories. This article will help laboratories prepare for a CLIA survey through HCFA certification or COLA accreditation.

> "The questions and tasks associated with a survey may seem complicated and burdensome, but the outcome will be an improved laboratory operation."

HCFA Survey Protocol

CLIA regulations include guidelines for conducting laboratory surveys. Appendix C of HCFA's State Operations Manual, "Survey Procedures and Interpretive Guidelines for Laboratories and Laboratory Services," is the document that surveying personnel will use to clarify the intent of the regulations.

The surveyors are experienced and trained to look for certain key areas of compliance. The CLIA '88 Advisory Committee has proposed that surveys be "educational" for previously unregulated laboratories. Nonetheless, surveyors will write up deficiencies that violate the CLIA regulations and will specify a time frame for compliance, which can vary depending on the severity of the deficiency. Surveyors can and will shut down labs for deficiencies that pose immediate jeopardy to patients. Usually a written report is delivered within 10 days of the survey, and laboratories must be given a minimum of 15 days to comply once they've been notified. To comply, the laboratory must prepare a statement outlining a plan of correction that 1) is developed and supported by a credible representative of the laboratory, e.g., the laboratory director, and 2) includes a realistic time frame to accomplish the corrective action.

HCFA Survey Process

Following is a brief description of what actually happens in a survey. The surveyor prepares by reviewing any past surveys and documents submitted to HCFA. The surveyor conducts an entrance interview to explain the survey regulations and definitions of key areas for review. Laboratory directors and supervisory personnel should be present at the entrance interview. The surveyor then tours the facility and assesses the general adequacy of the facilities and organization of operations. In most cases, the surveyor can quickly identify potential problem areas. The surveyor then does the following:

1. selects samples for direct observation (for example, the surveyor might watch a laboratory employee perform a glycosolated hemoglobin test);
2. assesses specimen collection protocol and integrity of samples by directly observing the skills and abilities of testing and supervisory staff;
3. assesses test performance and reporting of results, including the staff's ability to follow quality assurance protocols;
4. verifies personnel qualifications as defined by job descriptions; and
5. verifies results of proficiency testing.

Finally, the surveyor reviews the findings and gives an exit conference. This is an extremely important component of the survey because it allows the laboratory personnel to find out what deficiencies the surveyor noted and provides an opportunity to ask questions about devising a plan for achieving compliance.

In general, if a laboratory's policy and procedure manuals and quality assurance documentation follow the basic checklist on the facing page, the inspection will provide an opportunity to learn more about quality management. (See page 30 for a list of questions that also will help you prepare for a laboratory survey.)

The COLA Alternative

The Commission on Office Laboratory Accreditation (COLA) is a private, nonprofit, voluntary education and accreditation program for the office laboratory. Founded by the American Medical Association, the American Academy of Family Physicians, the American Society of Internal Medicine, and the College of American Pathologists, it provides physicians an alternative to federal certification. At the Minnesota Medical Association's Annual Meeting earlier this fall, the MMA House of Delegates encouraged all physicians seeking clinical laboratory accreditation to do so through COLA when appropriate.

HCFA certifies that laboratories accredited by COLA meet CLIA '88 requirements and are subject to COLA's standards. All COLA surveys are educationally focused. COLA provides physicians with an opportunity to conduct a comprehensive self-survey in preparation for its on-site survey. The checklist physicians use to complete the self-survey is the same as that used by the COLA surveyors during their on-site visit. COLA evaluates the self-survey and provides physicians with a list of deficiencies that can be corrected before the on-site survey.

The COLA program is not a proficiency testing program. Regardless of whether laboratories decide to participate in COLA or in the federal program, they will need to purchase a proficiency testing package from an approved proficiency testing program. The cost of the package is not included in the COLA fee or the

*Checklist for CLIA '88 HCFA Survey Preparation**

HCFA Application

Prepare an up-to-date HCFA application (form 109 or replacement form 114, 115, 116), which asks for:

- a list of the tests performed at the laboratory, including all specialty and subspecialty tests;
- a list of the laboratory's personnel and their job functions;
- the laboratory's name, location, ownership, director, and general supervisor.

Personnel Records

Verify that personnel records include the following for each employee:

- a clearly stated job description and list of responsibilities;
- the employee's education and experience;
- documentation of training and competency for each test performed;
- proof that duties are performed appropriately.

Patient Test Management

Make certain that patient test management is being carried out according to the CLIA regulations, which specify that:

- tests must be ordered by an authorized person;
- specimens must be collected, processed, and tested according to laboratory policy;
- results must reflect test output and must be reported in a timely and confidential manner;
- documentation must be available when policy is not carried out correctly.

Policy and Procedure Manuals

Check policy and procedure manuals to be sure that they are up-to-date, that changes have been approved by the laboratory director, and that the manuals document policies and procedures for:

- collecting and handling specimens;
- conducting tests (including quality control guidelines);
- sending out testing guidelines and reporting results;
- maintaining instruments and equipment;
- following OSHA and other safety guidelines;
- conducting and analyzing proficiency testing;
- maintaining quality assurance.

Operations

Make sure laboratory operations allow for efficient work flow and personnel interaction and confirm that the laboratory has adequate facilities, equipment, and supplies for conducting tests and maintaining safety.

Proficiency Testing (PT)

Be certain that the laboratory:

- is enrolling in all available proficiency tests for listed specialties and subspecialties;
- has a procedure for evaluation and a correction plan for PT failures;
- is handling PT samples in the regular workload using the same procedures as other patient samples.

Quality Assurance (QA)

Be certain that the laboratory is:

- actively reviewing QA reports and activities to document that it is following continuous quality improvement for the total testing process, from test request to test result reporting;
- analyzing and actively responding to complaints and recommendations from clinicians, patients, and laboratory personnel for improved services.

*From: Passey RB. How to prepare for and survive a CLIA inspection. Medical Laboratory Observer, March 1993: 31-3.

Questions to Consider Before a CLIA HCFA Survey*

1. Does the laboratory have a current list of the tests it performs?

2. Has the laboratory notified HCFA of any changes, such as a new director, new lab personnel, or a change in ownership?

3. Has the laboratory director reviewed, initialed, and dated the procedure manuals?

4. Do personnel follow "universal precautions" when handling laboratory specimens?

5. Have all laboratory personnel received the hepatitis B vaccine? Have personnel that declined the vaccination signed a declination form?

6. Does the laboratory have a safety manual?

7. Is a fire plan available and do the personnel know the plan?

8. Do the personnel know the requirements for local waste disposal? Are the requirements being followed?

9. Is a log kept of referred tests, including the name of patient, date, specimen, test sent out, and the date the final report was received?

10. Do personnel follow manufacturers' instructions for maintenance of instruments, and do they log their maintenance activities?

11. Does the laboratory note unsatisfactory specimens on the patient report or in a log book?

12. Does the laboratory document critical values, instrument ranges, and reference ranges?

13. Are documented actions taken when results of patients' tests exceed critical values established by the laboratory?

14. What method does the laboratory use for reporting patient results?

15. Does the laboratory retain a copy of the original lab report as part of patients' charts?

16. Does the laboratory have a written form for documenting the type of controls used?

17. Does the laboratory have written documentation specifying the frequency for running control materials?

18. Does the laboratory follow written criteria for identifying out-of-control situations, such as exceeding the upper or lower limit?

19. When control results are unacceptable, is a written, corrective-action procedure followed?

20. When a lab analyzer becomes inoperable, is a procedure available for handling patient specimens until the instrument is operable?

*From: Moving Forward with CLIA '88. Wisconsin State Laboratory of Hygiene, Madison, Wisconsin: August 1993.

cost of the federal inspection.

HCFA recently told COLA that laboratories currently enrolled in the COLA program or that indicate an intent to obtain a "certificate of accreditation" on the HCFA-116, will not be billed for an inspection or placed on the list of facilities to be inspected by state and federal surveyors.

An example of the cost for an inspection is as follows: A two-physician practice performing four specialties of testing and an estimated 12,000 tests per year will pay COLA a two-year fee of $1,200, an additional HCFA accreditation fee of $350 for a certificate of accreditation, and an $82 validation fee, for a total two-year fee of $1,632. In contrast, the cost of a similar HCFA inspection would be $1,995.

For more information on COLA, contact the Commission on Office Laboratory Accreditation, 9881 Brokenland Parkway, Suite 200, P.O. Box 240, Columbia, MD 21045; 301/588-5882.

Conclusion

CLIA certification and COLA accreditation are intended to educate laboratory personnel, management, and clinicians. The purpose is to measure compliance with regulations. The questions and tasks may seem complicated and burdensome, but the outcome will be an improved laboratory operation. Laboratorians have set the minimum standards. Now, all labs and their staffs must work toward meeting these standards and improving the quality of service. **MM**

Julie Gayken is a laboratory consultant with Alliance Consulting Service in St. Cloud, Minnesota, and Jerry Bennington is a laboratory consultant with Marshfield Medical Center Laboratory in Marshfield, Wisconsin.

For more information on CLIA certification, contact Robert A. Gunkle, assistant section chief, Survey and Compliance Section, Health Resources Division, Minnesota Department of Health, 393 North Dunlap, P.O. Box 64900, St. Paul, MN 55164-0900; 612/643-2105.

Copies of the State Operations Manual, "Survey Procedures and Interpretive Guidelines for Laboratories and Laboratory Services—Appendix C" may be purchased from the National Technical Information Service, 800/553-6847. Request product number DB 921. 46174.

MMA Supports Goals of Clinton Plan

Physicians Still Concerned About Details

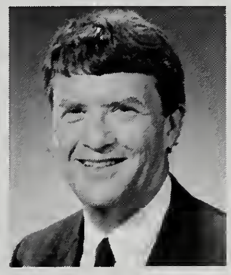
C. Randall Nelms Jr., M.D.

The Minnesota Medical Association reaffirmed its commitment to health system reform at its Annual Meeting October 1. Universal access to high-quality, cost-effective health care is our No. 1 priority.

The MMA strongly supports the goal of the Clinton administration's proposal for national health system reform—to provide affordable health care for every American. The cornerstone of Clinton's plan is mandatory insurance coverage for everyone, paid for largely by employers and subsidized by the government for people who cannot afford to pay their share. It includes a comprehensive package of health care benefits emphasizing primary and preventive care (see this month's cover story on Clinton's plan, page 10, for further details).

The Clinton plan emphasizes access, affordability, and accountability—mirroring the health system reform principles that the MMA proposed in 1991 and that are part of Minnesota's health system reform plan. At its Annual Meeting, the MMA strongly endorsed Clinton's six principles of health system reform:

- Security—provide universal coverage emphasizing preventive care;
- Simplicity—minimize paperwork and ease government rules;
- Savings—control spiraling health care costs by giving groups of consumers and small businesses bargaining power, guaranteeing coverage, simplifying the system, and reducing fraud and abuse;
- Choice—allow patients to choose their physicians and health plans, and allow doctors to choose the plans in which they practice;
- Quality—preserve quality health care through means such as outcomes measurement;
- Responsibility—crack down on abuse of the system and ask all to pay their fair share for coverage.



> "As health system reform begins in earnest, physicians must enter the discussion well-informed and with a plan of action."

However, like all participants in the health care debate, organized medicine has many reservations about the plan. Lonnie Bristow, M.D., chair of the American Medical Association's Board of Trustees, has applauded parts of the White House's blueprint for health care change—notably its principles to provide universal coverage and comprehensive benefits—but the AMA forcefully opposes some elements of the proposal.

"We are pleased these principles have come to enjoy widespread support and are now considered by the president to be not negotiable," says Bristow. "But we fear the price controls, over-regulation, and the new layers of bureaucracy the president proposes eventually will limit patient and physician choices, lessen the quality of medical services, and undermine the mutual trust between patient and physician."

In addition, the Clinton plan lacks significant details about how it would implement many of its principles, and its finance reform measures remain unclear.

It seems likely that the final health system reform legislation Congress passes will differ significantly from the administration's proposal, in light of the president's heated budget battles earlier this year. The potential for the plan to change as it moves through the political process is a proverbial double-edged sword—it can cut both ways. The process will allow physicians the opportunity to seek changes in areas of concern, such as malpractice liability and antitrust reform, global budgets, real choice for patients and physicians, disruption of community health care, sustainable and long-lasting physician-patient relationships, and financing.

On the other hand, some groups are fighting to change or eliminate aspects of the plan the MMA supports. For example, some lawmakers want to scale back the package of health care benefits.

We are at the beginning of what is sure to be a long political process—one that physicians cannot afford to ignore. As health care system reform begins in earnest, physicians must enter the discussion well-informed and with both a plan of action and the understanding that the delivery of medical care is undergoing fundamental changes. If physicians do nothing, hospitals and insurers will dictate these changes. But if physicians understand the problems and support the same principles of reform, we can lead the debate.

If ever there's a time for physicians to speak with a unified voice, that time is now. MM

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Enalapril Maleate: There was no evidence of a tumorigenic effect when enalapril was administered for 106 weeks to rats at doses up to 90 mg/kg/day (150 times* the maximum daily human dose). Enalapril has also been administered for 94 weeks to male and female mice at doses up to 90 and 180 mg/kg/day, respectively, (150 and 300 times* the maximum daily dose for humans) and showed no evidence of carcinogenicity.

Neither enalapril maleate nor the active diacid was mutagenic in the Ames microbial mutagen test with or without metabolic activation. Enalapril was also negative in the following genotoxicity studies: rec-assay, reverse mutation assay with *E. coli*, sister chromatid exchange with cultured mammalian cells, and the micronucleus test with mice, as well as in an *in vivo* cytogenic study using mouse bone marrow.

There were no adverse effects on reproductive performance in male and female rats treated with 10 to 90 mg/kg/day of enalapril.

Hydrochlorothiazide: Two-year feeding studies in mice and rats conducted under the auspices of the National Toxicology Program (NTP) uncovered no evidence of a carcinogenic potential of hydrochlorothiazide in female mice (at doses of up to approximately 600 mg/kg/day) or in male and female rats (at doses of up to approximately 100 mg/kg/day). The NTP, however, found equivocal evidence for hepatocarcinogenicity in male mice.

Hydrochlorothiazide was not genotoxic *in vitro* in the Ames mutagenicity assay of *Salmonella typhimurium* strains TA 98, TA 100, TA 1535, TA 1537, and TA 1538 and in the Chinese Hamster Ovary (CHO) test for chromosomal aberrations, or *in vivo* in assays using mouse germinal cell chromosomes, Chinese hamster bone marrow chromosomes, and the *Drosophila* sex-linked recessive lethal trait gene. Positive test results were obtained only in the *in vitro* CHO Sister Chromatid Exchange (clastogenicity) and in the Mouse Lymphoma Cell (mutagenicity) assays, using concentrations of hydrochlorothiazide from 43 to 1300 µg/mL, and in the *Aspergillus nidulans* non-disjunction assay at an unspecified concentration.

Hydrochlorothiazide had no adverse effects on the fertility of mice and rats of either sex in studies wherein these species were exposed, via their diet, to doses of up to 100 and 4 mg/kg, respectively, prior to conception and throughout gestation.

Pregnancy: Pregnancy Categories C (first trimester) *and D* (second and third trimesters). See WARNINGS, *Pregnancy, Enalapril Maleate, Fetal/Neonatal Morbidity and Mortality.*

Nursing Mothers: Enalapril and enalaprilat are detected in human milk in trace amounts. Thiazides do appear in human milk. Because of the potential for serious reactions in nursing infants from either drug, a decision should be made whether to discontinue nursing or to discontinue VASERETIC, taking into account the importance of the drug to the mother.

Pediatric Use: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: VASERETIC has been evaluated for safety in more than 1500 patients, including over 300 patients treated for one year or more. In clinical trials with VASERETIC no adverse experiences peculiar to this combination drug have been observed. Adverse experiences that have occurred, have been limited to those that have been previously reported with enalapril or hydrochlorothiazide.

The most frequent clinical adverse experiences in controlled trials were: dizziness (8.6 percent), headache (5.5 percent), fatigue (3.9 percent) and cough (3.5 percent). Adverse experiences occurring in greater than two percent of patients treated with VASERETIC in controlled clinical trials were: muscle cramps (2.7 percent), nausea (2.5 percent), asthenia (2.4 percent), orthostatic effects (2.3 percent), impotence (2.2 percent), and diarrhea (2.1 percent).

Clinical adverse experiences occurring in 0.5 to 2.0 percent of patients in controlled trials included: *Body As A Whole:* Syncope, chest pain, abdominal pain; *Cardiovascular:* Orthostatic hypotension, palpitation, tachycardia; *Digestive:* Vomiting, dyspepsia, constipation, flatulence, dry mouth; *Nervous/Psychiatric:* Insomnia, nervousness, paresthesia, somnolence, vertigo; *Skin:* Pruritus, rash; *Other:* Dyspnea, gout, back pain, arthralgia, diaphoresis, decreased libido, tinnitus, urinary tract infection.

Angioedema: Angioedema has been reported in patients receiving VASERETIC (0.6 percent). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis and/or larynx occurs, treatment with VASERETIC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In clinical trials, adverse effects relating to hypotension occurred as follows: hypotension (0.9 percent), orthostatic hypotension (1.5 percent), other orthostatic effects (2.3 percent). In addition syncope occurred in 1.3 percent of patients. (See WARNINGS.)

Cough: See PRECAUTIONS, *Cough.*

Clinical Laboratory Test Findings; Serum Electrolytes: See PRECAUTIONS.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.6 percent of patients with essential hypertension treated with VASERETIC. More marked increases have been reported in other enalapril experience. Increases are more likely to occur in patients with renal artery stenosis. (See PRECAUTIONS.)

Serum Uric Acid, Glucose, Magnesium, and Calcium: See PRECAUTIONS.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g percent and 1.0 vol percent, respectively) occur frequently in hypertensive patients treated with VASERETIC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1 percent of patients discontinued therapy due to anemia.

Liver Function Tests: Rarely, elevations of liver enzymes and/or serum bilirubin have occurred.

Other adverse reactions that have been reported with the individual components are listed below and, within each category, are in order of decreasing severity.

Enalapril Maleate—Enalapril has been evaluated for safety in more than 10,000 patients. In clinical trials adverse reactions which occurred with enalapril were also seen with VASERETIC. However, since enalapril has been marketed, the following adverse reactions have been reported: *Body As A Whole:* Anaphylactoid reactions (see PRECAUTIONS, *Hemodialysis Patients*); *Cardiovascular:* Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances including atrial tachycardia and bradycardia; atrial fibrillation; hypotension; angina pectoris; *Digestive:* Ileus, pancreatitis, hepatic failure, hepatitis (hepatocellular [proven on rechallenge] or cholestatic jaundice), melena, anorexia, glossitis, stomatitis, dry mouth; *Hematologic:* Rare cases of neutropenia, thrombocytopenia and bone marrow depression. Hemolytic anemia, including cases of hemolysis in patients with G-6-PD deficiency, has been reported; a causal relationship to enalapril has not been established. *Nervous System/Psychiatric:* Depression, confusion, ataxia, peripheral neuropathy (e.g., paresthesia, dysesthesia); *Urogenital:* Renal failure, oliguria, renal dysfunction (see PRECAUTIONS), flank pain, gynecomastia; *Respiratory:* Pulmonary infiltrates, bronchospasm, pneumonia, bronchitis, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection; *Skin:* Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pemphigus, alopecia, flushing, photosensitivity; *Special Senses:* Blurred vision, taste alteration, anosmia, conjunctivitis, dry eyes, tearing.

Miscellaneous: A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgia/myositis, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash and other dermatologic manifestations.

Fetal/Neonatal Morbidity and Mortality: See WARNINGS, *Pregnancy, Enalapril Maleate, Fetal/Neonatal Morbidity and Mortality.*

Hydrochlorothiazide—Body as a Whole: Weakness; *Digestive:* Pancreatitis, jaundice (intrahepatic cholestatic jaundice), sialadenitis, cramping, gastric irritation, anorexia; *Hematologic:* Aplastic anemia, agranulocytosis, leukopenia, hemolytic anemia, thrombocytopenia; *Hypersensitivity:* Purpura, photosensitivity, urticaria, necrotizing angiitis (vasculitis and cutaneous vasculitis), fever, respiratory distress including pneumonitis and pulmonary edema, anaphylactic reactions; *Musculoskeletal:* Muscle spasm; *Nervous System/Psychiatric:* Restlessness; *Renal:* Renal failure, renal dysfunction, interstitial nephritis (see WARNINGS); *Skin:* Erythema multiforme including Stevens-Johnson syndrome, exfoliative dermatitis including toxic epidermal necrolysis, alopecia; *Special Senses:* Transient blurred vision, xanthopsia.

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* Based on patient weight of 50 kg.

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CRITERION

(continued from page 7)

and very unhappy. We need to be more visionary about developing new ways to work together. In a capitated system, we are cost centers for our clinics, not profit centers. This demands a huge change in thinking, not to mention one in the way we do business."

Antitrust issues have been and remain a serious concern for Criterion organizers. "But here, I think we really have our bases covered," Indihar says confidently. Although the Minnesota Health Care Commission plans to set guidelines to help clinics without walls avoid violating antitrust laws, nothing is on paper yet at either the state or federal level. "Our response to this situation," says Indihar, "has been to carefully follow the criteria set up by our attorneys and to be very careful every step of the way to follow current state and federal laws."

Despite the obstacles he and the other Criterion organizers have confronted, Indihar remains confident and is effusive when he speaks of Criterion. "I believe we'll succeed because Criterion will benefit all involved: physicians, large buyer groups, the patients who receive care, and the community at large. Furthermore, we like to say that Criterion will be pro-competitive because it will level the playing field and enable docs to compete with existing physician-hospital organizations (PHOs) and large multispecialty group practices, as well as with the coming integrated service networks."

Because Criterion will have a system to examine patient outcomes, Indihar says the group will also be able to prove its value to the community. "We believe that private physicians in such an arrangement can provide care that is as good or better than any integrated delivery system, at least as cost-effectively and in their own offices. I think we have a product that will work." Adding weight to his claim, a 17,000-patient, three-city study published in the August 18, 1993, *Journal of the American Medical Association* identified widespread dissatisfaction with HMOs. Researchers found that patients in the study in Boston, Chicago, and Los Angeles were more likely to be satisfied with the explanations of their treatments from doctors working in their own offices or in small single-specialty groups than from doctors working in HMOs. The patients also thought that independent physicians showed more interest in their patients' well-being and were easier to reach and see, especially on short notice.

Although Indihar is quick to state that clinics without walls are not meant for every physician, he believes the choices for independent physicians are quickly fading. "Every doctor will have to do something in the next year or two," he predicts. "Either you'll work for a staff-model HMO or a hospital system, or you'll be forced into an ISN. Or you can participate in a clinic without walls and maintain much of your independence." MM

Joseph Moriarity is a free-lance writer living in Marine on St. Croix.

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MALPRACTICE

(continued from page 9)

- Establish a support group or provide a list of physicians to contact who are going through a suit or have been through one.
- Offer seminars on what physicians should expect when being sued. Include information on what to do and what not to do. The attorney I engaged to deal with the Board of Medical Practice said I should have fought my suit since the claim was groundless. Yet I never received a call from my insurance company advising me to reconsider my choice to settle—a decision I made solely out of fear.
- Work to reduce the unbearably long wait (often many months or even years) physicians must endure before receiving judgment from the Board of Medical Practice.
- Work to eliminate the National Practitioner Data Bank. Physicians are the only group who cannot erase a bad mark against them, even in death. Many physicians are listed in the Data Bank as a result of patient allegations motivated by greed, not because they have done anything wrong.
- Provide a list of psychiatrists experienced in helping physicians who are being sued.
- Work for malpractice reform. This country has created a hostile climate for physicians' practices. Inappropriate malpractice claims rob us all of dollars we desperately need to treat patients. MM

Author's name withheld upon request.

Editor's Note:

Minnesota Medicine *invites readers to respond to this Perspectives piece, which describes the author's perceptions of her own malpractice "nightmare."*

For a thorough discussion of the claim and legal processes involved in medical malpractice actions, see "What Happens in a Malpractice Action?" Minnesota Medicine, *October 1992, page 29.*

People and Places Making Medical News

People

MMA Awards Physicians at Annual Meeting

The Minnesota Medical Association honored several physicians September 30 at an awards brunch held at the association's annual meeting in Duluth.

James Knapp, M.D., of Detroit Lakes, and **Ben Owens, M.D.**, of Hibbing, were awarded the Distinguished Service Award, the MMA's highest honor, for their years of leadership and service in the MMA and for their outstanding contributions to medicine. Knapp, a family physician with a certificate in geriatrics, currently practices in Wahpeton, North Dakota. Owens, also a family physician, is an owner of the Mesaba Clinic in Hibbing.

Walter B. Franz, III, M.D., of Rochester, and **Rolland Pistulka, M.D.**, of Chaska received Physician Awards for Community Service, which honor physicians who have performed outstanding service to their communities in addition to their practice of medicine. Franz specializes in family medicine at the Mayo Clinic in Rochester, and Pistulka is a family physician at Crossroads Medical Center, P.A., in Chaska.

Five physicians received the President's Award in recognition of their outstanding contributions to the medical profession through service to the MMA: **Joseph A. Cella, M.D.**, an obstetrician/gynecologist at Professional Ob/Gyn, Ltd., in Minneapolis; **George A. Cole, M.D.**, an internal medicine and geriatric internal medicine specialist at the Mayo Clinic in Rochester; **Merle S. Mark, M.D.**, a family physician at Douglas Drive Family Physicians in Minneapolis; **Burton M. Onofrio, M.D.**, a neurosurgeon at the Mayo Clinic; and **Richard K. Simmons, M.D.**, a family physician at the Penn Avenue Medical Group in Bloomington.

The MMA presented its Physician Communicator Award to **Thomas C. Shives, M.D.**, host of "Healthline," a 55-minute radio program broadcast every Saturday morning on KROC in Rochester. Shives is an orthopedic surgeon at the Mayo Clinic. The Physician Communicator Award is given to MMA members who demonstrate exemplary skills in communicating with the public.

HCMC Medical Director

Hennepin County Medical Center has appointed Lorri Sills, M.D., a psychiatrist at the center, medical director for its new Crisis Intervention Center. In the position, she supervises the medical staff and psychiatry residents who provide care in the CIC, and she also evaluates patients.

ACR Fellow

Glenn S. Forbes, M.D., of the Mayo Clinic in Rochester, has been named a fellow of the American College of Radiology. He was selected for his outstanding contributions to the field of radiology.

Medica Foundation Board

Medica has named eight health care leaders to the board of directors for the Medica Foundation: Andrew J. K. Smith, M.D., president-elect of the Minnesota Medical Association and a physician at Minneapolis Neurological Surgeons; Sister Mary Madonna Ashton, president and chief executive officer of Carondelet LifeCare Corp.; K. James Ehlen, M.D., Medica chair and chief executive officer; Jean Harris, M.D., director of Medical Affairs at the University of Minnesota Hospital and Clinic; Thomas McBurney, chair of McBurney Management Advisors and Medica board member; Jerry Olson, president of Jerry Olson & Associates; Lois Quam, vice president of Public Sector Services at United HealthCare Corp.; and Jan Smaby, president of Public Policy Resources, Inc.

The Medica Foundation is a nonprofit organization created to increase awareness and understanding of health care issues and to stimulate discussion and action in addressing these issues.

Medica Executives

Arnold Hebert, vice president of sales and marketing at Medica for the past four years, has left the company to become senior vice president of commercial marketing with PacifiCare of California. James Eppel, who had been Medica's vice president of provider services, replaces Hebert as vice president of commercial products. Eppel's former position has been eliminated.

Medica has also eliminated the positions held by Bob Suellentrop, chief operating officer, and Joanne Sigstad, vice president of medical management. Both employees were working on loan from United HealthCare Corp., which manages Medica, and are now returning to work for United. Medica had hired Suellentrop about a year ago to help develop Medica's reorganization strategy. His job is now finished. Sigstad's position is being dissolved and her work load is being spread out among other employees.

Except for Hebert, who left

Medica to pursue a new position, the changes are part of Medica's goal of consolidating and reshaping senior management so that it is directly involved in all aspects of health care delivery, according to James Ehlen, Medica chair and chief executive officer.

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Abbott Appointments

Miles Belgrade, M.D., a regionally known expert in pain management, has been appointed Abbott Northwestern Hospital's Pain Services medical director. In this capacity, Belgrade will have primary responsibility for the Sister Kenny Institute Chronic Pain Program and also will serve as director of the Virginia Piper Cancer Institute Pain Program. Belgrade, a neurologist, chairs the Physician Education Committee of the Minnesota Cancer Pain Initiative. He recently served as the Pain Management Program and Services medical director at Hennepin County Medical Center in the Department of Neurology.

Rick Palmisano has been appointed managing director and president of Behavioral Health Services, Inc., a joint venture of Abbott Northwestern Hospital and Blue Cross and Blue Shield of Minnesota. In addition to his new position, Palmisano continues to direct the behavioral health division of Abbott Northwestern Hospital.

MHA Board

The Minnesota Hospital Association has elected Tim Hanson chair-elect of its Board of Trustees. Hanson is president and chief executive officer of St. Paul-based HealthEast. The association also elected the following trustees-at-large: Dan McLaughlin, director of the Hennepin County Bureau of Health; John Grotting, operations officer of HealthSpan, Corp.; and Michael Fay, an independent insurance agent in Hibbing and a member of the University of Minnesota Hospital and Clinic Board of Trustees.

Places

Medica Releases Report Card

Medica recently released its first report card on its health plan Medica Choice, although it admits that more information will be needed to make the evaluation meaningful. The report, which is part of United HealthCare Corp.'s effort to influence reporting standards being developed by the industry and government, includes statistics on consumer satisfaction, quality, efficiency, and costs.

Medica said its health plan compares favorably with national rates for preventive care, such as pediatric immunizations, mammographies, and Pap smears. It also said its Cesarean section rate was lower than the national average. It reported 1992 administrative costs at $9.03 per member per month; however, the Minneapolis-based Citizens League estimated Medica's administrative costs at $12.75 using a different method.

Phillips Named Eye Specialty Hospital

The Phillips Eye Institute has been recognized as a federally designated eye specialty hospital, becoming one of a score of free-standing medical facilities nationwide carrying eye specialty designation. To receive such status, a hospital must meet criteria that relate to its degree of specialization in the diagnosis and treatment of diseases of the eye.

The Phillips Eye Institute, which is located on the campus of the former Mount Sinai Hospital in Minneapolis, is part of HealthSpan Health Systems Corp.

Socioeconomics

Minnesota Healthiest State in the Nation—Again

Northwestern National Life Insurance Co. has identified Minnesota as the healthiest state in the nation for the second straight year. Its annual study ranked Minnesota just above New Hampshire and ranked Mississippi worst among the 50 states. The study compares 17 categories, including illness rates, death rates, lifestyles, and access to health care. Minnesota tied for best-in-the-nation in three of the study's categories: total deaths, premature deaths, and high school graduation rates. The graduation rate is used as an indirect measure of health knowledge. The premature death rate is based on the number of years of life lost before age 65.

HealthPartners, Ramsey HealthCare to Merge

HealthPartners, parent company of Group Health and MedCenters, and Ramsey HealthCare Inc., parent company of St. Paul-Ramsey Medical Center, have agreed to merge, marking the first such agreement between a Minnesota health plan and hospital. The preliminary merger agreement calls for HealthPartners to assume control of St. Paul-Ramsey Medical Center, Ramsey Clinic Associates, and Ramsey Foundation. Because both HealthPartners and Ramsey HealthCare are nonprofit, there will be no exchange of cash. The groups expect to complete final agreements by the end of 1993 and will begin combined operations in 1994.

George Halvorson, HealthPartner's president and chief executive officer, said the merger will cut costs through consolidation of some departments, such as radiology and anesthesiology. HealthPartners will also reduce its imaging costs by one-third because St. Paul-Ramsey has its own equipment. Halvorson said the merger will lay the foundation for an integrated service network.

HealthPartners, Park Nicollet Sign Agreement

Park Nicollet Medical Center and HealthPartners, parent company of Group Health and MedCenters, have signed a long-term agreement in an effort to coordinate planning, cut costs, and better serve patients. The agreement also is meant to continue the strategic partnership between Park Nicollet and MedCenters Health Plan initiated more than 20 years ago. The agreement creates the framework for the development of an integrated service network, which the group plans to form by July 1, once state laws for the establishment of ISNs are in place.

"Carefully chosen relationships with long-term partners is the key to providing our patients with high-quality, cost-effective care," said Charles Jacobson, M.D., Park Nicollet president and chief executive officer.

Dakota Clinic, Blue Cross Sign Agreement

Dakota Clinic and Blue Cross and Blue Shield of Minnesota have signed a long-term agreement to serve the health care needs of residents in northwestern Minnesota. Through the partnership, they will offer a new preferred provider organization product and will jointly develop an integrated service network. The agreement, which remains in place indefinitely, applies to all of Blue Cross and Blue Shield of Minnesota's companies, including Blue Plus, and to all its health plans, including Preferred Gold, AWARE Gold, and the State Health Plan.

Dakota Clinic signed a contract with Blue Cross in 1984 when it was looking to develop a primary relationship with a health plan. "We haven't wavered from that initial commitment," said Larry Solberg, administrator of the Fargo-based clinic. "This agreement ensures that we will continue to work even more closely together to improve the quality of health care in our service area."

Medica, HealthSpan Negotiating Joint Venture

Medica and HealthSpan are negotiating a joint venture, but as *Minnesota Medicine* goes to press, they have yet to decide what form it would take. Linda Lee, a spokesperson for Medica, said the two companies are planning to set up an integrated service network.

HealthSpan owns or manages 16 hospitals, including Abbott Northwestern in Minneapolis, United in St. Paul, Unity in Fridley, and Mercy in Coon Rapids.

Integrated Health Care Delivery System: Shared Vision and Collaboration are Key Elements

Over the last months, Medica has been actively preparing to meet the challenges created by a changing marketplace and health care reform. Throughout this planning process, Medica has actively sought providers' opinions and advice in developing a new framework for future relationships.

A key element of this framework is Medica's concept of an integrated Health Care Delivery System. This model contemplates a *seamless* alignment and link between Medica and provider networks to deliver health care based on *collaboration* and *shared responsibilities.* Our philosophy embraces the need to establish *long-term* relationships with providers where all participants support quantifiable continuous improvement of clinical and administrative processes and outcomes.

In many ways, this model is an evolution of the direction Medica has taken in recent years with regard to its provider programs and activities; however, it also entails a conscious decision to restructure our organization to align resources in a more effective manner. Medica believes this new model will require both Medica and providers to be freed of constraints by imposed traditional roles.

Medica is seeking to develop long-term relationships with physicians, hospitals and other health care providers. The goal is to progress from negotiated relationships to collaborative relationships, allowing health care providers to become partners, not customers.

Driven by customer expectations, our medical delivery system will reflect a balanced perspective that considers service attributes including quality, cost and efficiency. To support these concepts, Medica has taken an initial step by realigning all of its medical delivery related functions into one cohesive unit.

The next months will begin an era of change, as we respond further we expect significant adaptation to the new environment. The active involvement of providers in this process is an essential component to forming an effective delivery system that meets customers' demands.

The combined efforts of Medica and providers to achieve a shared vision and collaborative strategies in delivering health care will ultimately strengthen the quality and efficiency of our health care delivery system.

Medica's mission is to be the leader in improving the quality, affordability and accessibility of health care.

MEDICA

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Fairview Restructuring

The Fairview Health System announced in late September plans to restructure the company to broaden its focus from a traditional hospital holding company to a health services operating company.

"We are reorganizing a system that has been centered on hospital care to one that will manage the entire health care experience, from preventive care to primary care to long-term care. A person's health can no longer be viewed in isolated episodes," said Richard A. Norling, Fairview president and chief executive officer.

Fairview will now have three divisions: a delivery system division to coordinate all health care services, including hospitals, Fairview clinics, home care, and ambulatory care; the Fairview Physician Associates division, a physician-hospital organization that aligns activities of independent physician practices affiliated with Fairview; and a risk management division to coordinate managed care contractual arrangements and partnership arrangements.

Mayo to Invest in Communications Links

The Mayo Clinic plans to invest $100 million over the next 10 years on information and communications systems to link its Rochester headquarters with its regional health care centers in Jacksonville, Florida, and Scottsdale, Arizona, and with its affiliates in Decorah, Iowa; Eau Claire, Wisconsin; and Wabasha, Minnesota. Mayo hopes such systems will counter negative effects that the Clinton plan may have on the clinic. According to John Herrell, chief administrative officer of the Mayo Foundation, Mayo would be hurt by a national plan that would "corral people into medical systems where they can't leave their borders." He said he hopes reforms will allow centers such as Mayo to continue treating patients regardless of the regional boundaries set for their health plans.

Mayo will not buy or affiliate with more clinics "until we see if anybody can survive" national health care reform, said Herrell. Instead, it will link the centers it currently has into a sophisticated telecommunications system that would provide its doctors with access to patient records and the ability to consult from different locations, he said.

HealthSpan Purchasing Parkview

HealthSpan Health Systems Corp. is in the process of purchasing St. Paul-based Parkview Obstetrics and Gynecology, P.A. Ten physicians practice with Parkview's clinics in downtown St. Paul, Eagan, and Maplewood. HealthSpan expects the purchase to be complete by December 31.

Parkview Administrator Cindy Anderson said the clinic sale is an effort to position the clinic to compete effectively for patients.

Franciscan Nuns Transfer Health Care Facilities

Franciscan Sisters Health Care is transferring ownership of its health care facilities in Minnesota and Wisconsin to Omaha, Nebraska-based Catholic Health Corp., which sponsors 114 health care facilities in 13 states. The former Franciscan Sisters Health Care sites in Minnesota are St. Gabriel's, St. Otto's, Alverna Apartments, and St. Camillus Place, all of Little Falls; Albany Area Hospital in Albany; LakeWood Health Center and LakeWood Care Center, Baudette; St. Francis Medical Center and Home, Breckenridge; and St. Joseph's Hospital, Park Rapids. Wisconsin sites are Franciscan Villa in South Milwaukee and Trinity Memorial Hospital in Cudahy.

According to Kregg Hanson, president of the Northern Division of Catholic Health Corp., the senior management and local board structures for the facilities will not change.

The sisters said they plan to use proceeds from the transfer for serving the needy, preparing sisters for ministry, and caring for elderly and ill sisters.

Golden Valley Health Facility Sold

Transitional Hospital Corp. of Atlanta has purchased the former Golden Valley Health Center facility and plans to open a 100-bed hospital for long-term, severely ill people this spring. The company paid $3.5 million for the site, according to Rod Laughlin, president and chief executive officer of Transitional Hospitals. It plans to begin renovating the site early in 1994 and will initially hire 75 people. It expects to employ 300 when the hospital is fully operational.

Laughlin said the company's long-term care facilities operate at 60 percent of the cost of an intensive care unit. He said the facility will not compete with other hospitals in the Twin Cities but, rather, will take referrals from them. Nonetheless, some area hospital administrators argue that the hospital will be in competition with other facilities, particularly HealthEast Bethesda Lutheran Hospital and Rehabilitation Center in St. Paul and Knapp Rehabilitation Center at Hennepin County Medical Center in Minneapolis.

"It all depends on what type of programming they do," said Martin Paul, vice president and administrator for Bethesda. "But it sounds like they're going to do just what we do."

Congress Gets No Special Treatment

In a move proposed by Sen. Paul Wellstone, D-Minnesota, the U.S. Senate has pledged that any health system reform package passed by Congress will offer the same level of benefits to all Americans and will not give members of Congress special privileges. Although the legislation is considered largely symbolic, the intent was to ensure that reforms will provide lower-

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and middle-class Americans a full range of health benefits. "We don't know what reform is going to look like yet," said Wellstone, "but we went on record saying everybody will get a comparable, high level of quality in health care." The legislation, unanimously approved by the Senate, includes no mechanisms for enforcement.

The legislation promises to "provide health care plans of comparably high quality and that members of Congress should participate on an equal basis with all other Americans in the health care system that results from the health care reform legislation."

Rates, Trends, Data

Teen Birth Rate Up

The rate of teenagers having babies increased for the fifth straight year, according to federal health officials. The Centers for Disease Control and Prevention reported 62.1 births for every 1,000 women aged 15 to 19 in 1991, compared with 59.9 in 1990. In Minnesota, the birth rate was 36.3 per thousand teens.

The CDC is unable to calculate the nation's overall teen pregnancy rate, which includes births and abortions, because 10 states keep no figures on abortions. Minnesota's pregnancy rate was 61.9 per 1,000 teens. Of the states that do report these statistics, Georgia had the highest teen pregnancy rate at 110.6 pregnancies per 1,000 teens. North Dakota had the lowest at 56.4.

Medical Research

Silicone Breast Implants Emit Cancer-Causing Chemicals

Recent studies confirm that silicone breast implants with polyurethane plastic coatings break down and emit potentially cancer-causing chemicals into the body, said federal officials. Research by Bristol-Myers Squibb shows that women with the implants have 2-toluene diamine (TDA) in their urine. The chemical causes cancer when fed to rats. Because the amount of the chemical found in the urine was so small, the FDA said it doesn't know if it would cause cancer in women who have the implants.

Bristol-Myers Squibb conducted its research on implants made by its subsidiary, Medical Engineering Corp. The company stopped making the implants, known as Meme and Replicon, in 1991.

AIDS Update

Aminoglycosides May Block HIV Replication

Researchers recently discovered that aminoglycosides, a toxic class of antibiotics, adhere to RNA molecules of the AIDS virus and thwart viral infections in cultured white blood cells. In a paper published in the journal *Cell*, researchers from the University of Massachusetts warn that the antibiotics have not yet been tested in people, that they have dangerous side effects, and that many AIDS drugs showing promise in the laboratory fail in clinical trials. However, they believe the discovery may lead to a new approach in designing drugs to fight HIV.

The most effective of the antibiotics is neomycin, but it is very toxic to the kidneys, said the researchers.

Needle Exchange Programs Help Prevent AIDS

Needle exchange programs for drug addicts are preventing HIV infections in drug users, their sex partners, and their children, according to a CDC-sponsored study. The 18-month study examined the 37 programs in the United States plus others in Canada and Europe that allow drug addicts to trade their used syringes for sterile needles. The study showed no evidence that distributing needles increases drug use. Rather, some programs refer addicts to treatment centers, creating the possibility that some will get off drugs.

Hennepin County health officials outlined in October a draft proposal developed with the Minnesota AIDS Project to begin a syringe exchange program. A mobile van would serve about 150 drug users at three sites in Minneapolis. The program would provide one new needle for each one turned in, up to five at once. Commissioners who were briefed on the proposal reacted favorably. However, the possession or delivery of illegal drug paraphernalia is outlawed in Minnesota, so the courts or Legislature may need to clarify whether the county can provide such a program. **MM**

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Children's Health

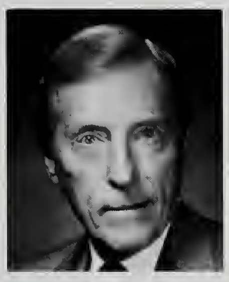
No Time for Complacency

Edmund C. Burke, M.D.

With advanced technology, antibiotics, new vaccines, and numerous health programs in our schools, medicine is making good progress in caring for children. Still, our optimism should not lead to complacency. I am shocked to learn that the percentage of 2-year-olds in the United States vaccinated with three or more doses of diphtheria-tetanus-pertussis consistently dropped from 77.9 percent in 1967 to 66.6 percent in 1991. Coverage for three or more doses of polio vaccine dropped from 63.6 percent in 1975 to 52.2 percent in 1991.

The good news is that coverage for measles has risen from the mid-60 percent range, where it stood during the 1970s and early 1980s, to an all-time high of 80.4 percent in 1991. In addition, immunization levels for kindergartners and first-graders have risen to about 95 percent and higher. This success is primarily due to state laws requiring vaccination before children start school. Nonetheless, the overall results show that we have yet to achieve a desirable level of immunizations among preschoolers. The crusade to immunize infants and preschoolers must never let up.

This month's cover story on children's health (page 10) makes the point that physicians, public health officials, and community groups must work together to improve the state's immunization and infant mortality rates, both good indicators of families' access to preventive and primary care. As the story describes, physicians are finding they must combat social ills to cure medical problems.



> "We have yet to achieve a desirable level of immunizations. The crusade to immunize infants and preschoolers must never let up."

Evidence of health problems among our nation's children is all too prevalent. The 1993 Youth Health Report Card issued by the American Health Foundation revealed that a high percentage of children and adolescents engage in unacceptable behavior regarding calorie intake, exercise, and use of tobacco, alcohol, and drugs. According to Ernst L. Wynder, M.D., president of the foundation, children must learn good health practices early because most form permanent health habits by age 8. Among the many health problems highlighted in the report are high rates of avoidable infectious diseases and elevated levels of blood lead and cholesterol. Health professionals reported more than 770 new cases of AIDS among children 13 or younger in 1993, a sharp rise over the 128 cases reported in 1985.

Two of the most horrifying problems affecting children's health are domestic violence and handgun injuries. Children victimized by domestic violence are more likely to engage in risky behaviors and are more likely to be perpetrators of family violence themselves. I commend the Minnesota Medical Association for its efforts to achieve a violence-free society by the year 2010.

Recently, Nancy Gannon, director of education for the Center to Prevent Handgun Violence, spoke to attendees at the Northwestern Pediatric Society Fall Meeting. She noted that the civilian sector of the United States owns 200 million firearms. Although most people believe guns will protect them, the statistics show that 43 family members and friends are fatally shot for every case in which a gun is used against an intruder. She told the story of a prominent California doctor who bought a gun for his 12-year-old son for target practice. One day when his parents weren't home, the boy accidentally shot and killed his 8-year-old sister. Gannon noted that such instances are no longer unusual and urged pediatricians and family physicians to talk to their patients about the danger of keeping a handgun in the home and the importance of keeping guns locked up. When one of every 25 high school students has admitted to carrying a gun to school, who can be complacent?

Finally, since this is my last Editor's Notebook as editor of *Minnesota Medicine*, I want to express my appreciation to the Advisory Committee members; to the journal's staff, Meredith McNab, Susan Rodsjo, Annette Robles, Christian Fünfhausen, and Mark Vukelich; but especially to you, our readers. It has been my pleasure and great privilege to serve as editor these past three years. My very best wishes for success to the incoming editor, Dr. Charles Meyer. **MM**

A Powerful Voice for Children

Luanne Nyberg Speaks Out

By Douglas Clement

A large photo of a baby's butt adorns the door of Luanne Nyberg's office. The baby is diapered, and on the diaper is a bull's eye. "When it's budget-cutting time, they always start with the easiest targets," says the caption beneath the photo. "Give children a voice. Yours."

As director of the Minnesota office of the Children's Defense Fund since 1985, Luanne Nyberg has given children a loud, some would say strident, voice. She—like the poster on her door—can be emotionally jarring in a state where protests are polite and smiles often mask disagreement. To those accustomed to more genteel debate, her tactics seem disconcerting, her methods too powerful and manipulative.

But like the poster, Nyberg is dead-on effective, one of the most successful advocates for child welfare our state has seen. "She certainly doesn't apologize, nor is she sheepish about taking positions," says Sen. Duane Benson, IR-Lanesboro. "She's very adamant. And very effective."

Nyberg was the primary architect of the Children's Health Plan, adopted by the state Legislature in 1987 to provide coverage for Minnesota's uninsured children. Now a national model, the plan was also the foundation for the state's health care program for uninsured adults, MinnesotaCare, a bill that Nyberg helped lobby through the Legislature in 1992.

Nyberg's work has led to an increase in child care subsidies from $10 million to $40 million biannually, to a tripling of the number of school breakfasts served in Minnesota, and to more funds for WIC and Head Start programs. She's spearheaded legislative efforts to reform Minnesota's welfare system, improve Medical Assistance, prohibit discrimination against children in rental housing, restore General Assistance cuts, and create a $100 million emergency jobs program.

It's a substantial record that has not gone unrecognized. The National Association of Social Workers, the Minneapolis Council of Churches, and the Minnesota Council on Family Relations all have given Nyberg their top awards. She's been appointed to numerous governors' commissions by both Perpich and Carlson, and last year, she won a Bush Fellowship and the College of St. Catherine's "Woman of the Year" award.

But for a woman who has accomplished so much, Nyberg takes little personal satisfaction in Minnesota's high national ranking in various measures of children's well-being. "In state-to-state comparisons," she argues, "we're comparing ourselves to an extremely mediocre standard. The U.S. is about 22nd in infant mortality in the world. Our black immunization rates are probably 60th in the world. Minnesota suffers from these state-to-state comparisons because we can become self-congratulatory or complacent, and it's not really warranted."

At length, Nyberg lays out reasons for continued concern: inadequate immunization, under-insurance for many children, still insufficient prenatal care, growing hunger, increasing poverty, dramatic racial differences on various health measures. The discouraging list accounts for Nyberg's relentless advocacy.

Still, Nyberg's critics fault her for overzealous campaigning and inappropriate pressure tactics. During the debate over MinnesotaCare, for example, a coalition of groups led by Nyberg staged a "die-in" at the Capitol, with Nyberg and other advocates collapsing on the Senate steps to protest the Minnesota Medical Association's opposition to several provisions of the bill.

"Instead of getting into the debate," says Thomas Stolee, M.D., a Duluth pathologist and president of the MMA at that time, "they use tactics like these that

PHOTOGRAPH BY SARA JORDE

Luanne Nyberg

> "Luanne Nyberg certainly doesn't apologize, nor is she sheepish about taking positions."
>
> –SEN. DUANE BENSON

I consider immature and not appropriate. ... I don't mind losing a battle. God knows I've lost a lot of them. But I like to lose them on the issues, not on tactics."

The fight over MinnesotaCare *was* highly charged, and Nyberg's tactics contributed to the atmosphere. And it's not the first time Nyberg has made enemies. She admits to being fired from a print shop years ago for trying to unionize workers.

More recently, she used the CDF mailing list to generate phone calls to Sen. Don Samuelson, DFL-Brainerd, chair of the Health Care and Family Services Finance Division. When Samuelson got 400 calls in two days, he was furious. Later, when it happened again by mistake, Nyberg tried to patch things up with a pot of flowers. Samuelson handed the flowers back.

"There are times when she certainly flirts with crossing the line with what is appropriate," says Benson, who helped shepherd MinnesotaCare through the Senate. Benson notes that Nyberg was full of praise for those who took tough stands in support of MinnesotaCare in 1992. "But the next year," he observes, "it was like we didn't do enough. So there's sometimes the perception that [she's] never satisfied. Maybe from her perspective, she feels she never should be."

But if Nyberg's methods are sometimes abrasive, her manner is anything but. Meeting a reporter for the first time, she acts like they're old friends. Later, when talking about her three children, she climbs atop her desk to grab the latest snapshots from her bulletin board. She's casual, warm, immediately likable, and very energetic. Not at all a fat-cat lobbyist, she has a modest ground floor office, with a view of two dumpsters and a parking lot.

But unlike many activists at under-funded agencies, Nyberg claims she is not a workaholic. "Half my life is my family," she says. "I don't want to neglect my children while trying to help others." Nyberg has three children, ages 20, 12, and 9. Her husband, John Ziegenhagen, is the executive assistant to the president at Hamline University. "Just hanging out with the family, bike rides, that kind of thing," is how Nyberg relaxes. "And I'm big on celebrations—birthday parties, Christmas, Easter."

The flowers and pies she often gives to legislators who "do the right thing" have roots in her own

CHILDREN continued on page 34

PERSPECTIVES

Winter Hunt

A Physician Ponders Lives Stalked by AIDS

BY WILLIAM AGGER

A rough-legged hawk hangs like a kite on the wind. I watch as he, a more efficient predator than I, hovers effortlessly above broken cornstalks. Rising up and dropping down again, now for a moment he hangs stationary, intent on the ground 20 feet below. Time stops. Abruptly he buckles, for nothing that intense can be still for long. And he is not rising again, so I know that time has stopped for the white-footed deer mouse in his talons. This buteo has come down from the prairies of Canada to feast on my coulee corn-fed mice. It seems to me a long way to travel for this dark predator with his white under feathers. Dressed in black and white, he wears a perfect suit for a funeral.

And so, I too stalk with hope for a fruitful hunt for ruffed grouse. I'd like to even the score, bird (hawk) kills mammal (mouse), mammal (man) kills bird (grouse). "Fair is fair," whatever that means. However, my footsteps are hardly silent wings, nor can my vision be measured "sharp." Success for this man on this cold January day, too much with snow, too much with wind, seems unlikely. Success for the grouse seems much more likely. It matters not, for I am not in the woods today for success, but rather to be alone.

A dark, sad mood again dropped on me in the office this morning. It came with the fearful face and tearful eyes of a young homosexual. And last month, too, it descended with a middle-aged man who had used IV heroin in Chicago. Twelve months ago, it arrived with a young pregnant woman whose lover used the same killing drugs. Twenty-four months ago, it appeared in the apparition of a bisexual business man: "Would the doctor test our baby without telling my wife?"

Not long ago, my subspecialty, infectious disease, was interesting and emotionally uplifting: interesting because of its biology, uplifting because most of my patients could be cured.

It is no longer that way. Now, a predatory virus stalks humans. It is a cruel, inefficient predator, slowly taking my patients' immunity and then their lives. Given a choice, I would rather fight a pneumococcus, which gives a quick winner-takes-all contest between pathogen and host. A pneumococcus is like a rough-legged hawk; with both, a clean escape can be made.

FOR A TIME I ESCAPE my morning sadness; a January hunt through the driftless region of western Wisconsin is distracting. Fields, woods, streams, and rivers; all are here to sample. And depending on the sun, or lack of it, and wind, or lack of it, these coulees can be sheltered and warm, forcing my coat open and brimming my hat with sweat. But, out of the ravine and over on the hill to the north, a very cold wind blows.

The human mind is fickle, always wanting new variety, new terrain. That can be in hunt, or food, or drink, or drugs, or sex. This drive for new experience can be our Achilles' heel. It's our cornfield above which our retrovirus hovers. "Should I take the risk? There doesn't seem to be a predator out today," think the mouse and the man.

Today, as I walk, I read frozen tracks of animals in white snow. Fox and rabbit, coyote and turkey, all have gone through their territorial rounds. I wonder where they are now, where they are going. Then, I think of my patients' futures. Where are they now; where are they going? The

ILLUSTRATION BY KRISTINA SWARNER

long-term prognosis is, to use the medical euphemism, "guarded." Seven years untreated? Perhaps, with luck, 14 with treatment? Not much time for these young adults who, until yesterday, had much longer plans.

In 15 years of practice, of treating, of caring, of comforting, there is one thing I have never done. I have never saved a life. I have only delayed deaths. So I help fight this virus with them. It is an emotional fight, a time-consuming fight, and in the end, a painful fight. It is hard to lose young people. My emotions scream, "Fair is fair, not this." But I remember the tracks in the snow of the predators and prey. And I doubt grouse think of my predation as "unfair"; instead, they instinctively avoid me.

SUDDENLY, MY THOUGHTS ARE BROKEN by an explosion of wings as a rusty-feathered blur flushes and flies straight away. It should be an easy shot, and yet, I can't react, surprisingly surprised. It does not seem so long ago that I hunted with quicker strides and more intensity. Then, I would have chided myself for not being alert. Now. smiling to myself, I watched the grouse sail downhill and into the safety of a stand of white pine.

Extremely adapted, the bird escaped easily. But, what of my patients and my community? We will have to work hard for it. But, unlike other species, we can adapt with our knowledge, warn one another of our common danger, and help one another when illness strikes.

As I look down into the coulee, I find it changing as the midday starkness of black oaks against white snow has softened in the late afternoon light into hues of blue, purple, and pink. It is a familiar place, but I perceive it differently. Pulling two shells from their cold chambers, I drop them into my empty bag and turn toward home and office. **MM**

William Agger is with Gundersen Clinic in La Crosse, Wisconsin. Reprinted with permission from Annals of Internal Medicine. © 1993 American College of Physicians.

COVER STORY

Making Kids Healthy

By Debra Giel Adams

PHOTOGRAPHS BY BRIAN PARMETER

Minnesota physicians find they must combat social ills to keep children well.

Minnesota receives high marks when it comes to children's health. The state passed the far-reaching and progressive Children's Health Plan in 1987. Minnesota consistently ranks near the top in national studies of children's health and social well-being. And our entire health care delivery system has been lauded by the president and first lady as a model for others to emulate.

Given this backdrop, what are we to make of the alarming reports recently released by city and state public health departments—reports of high infant mortality rates and low immunization rates among some populations in the state? The reports beg the question: Are Minnesota's children *really* healthy?

The truth is, most Minnesota children are born at a decent weight and are well nourished and well cared for; many of them are vaccinated on schedule—almost all by the time they start school. The problem is, a growing minority of them are not doing well on any of these scores, in part because of socioeconomic conditions not easily treated by the medical profession.

"Although we as physicians often want to deal only with the patient's medical condition, we can no longer afford to do that," says Robert Nordland, M.D., president of the Minneapolis Council of Obstetrics and Gynecology and an obstetrician in private practice in Waconia. "We have to look at the patient's social condition and entire social network."

In order to be an effective health care provider today, physicians are increasingly expected to treat the social as well as the medical ills that affect their patients. But physicians themselves debate whether that is their proper role—and whether they have the time, training, and know-how to do that job and do it well.

Now under public scrutiny, the state's infant mortality and immunization rates are bringing together physicians, public health officials, and community groups to examine patients' social conditions, as Nordland suggests, and to treat more than their medical symptoms.

"Infant mortality and immunization rates are two of our best proxy indicators of access to preventive services," says Charles Oberg, M.D., director of primary care training for the Department of Pediatrics at the University of Minnesota and medical director of the Hennepin County Homeless Assistance Project. "The current rates suggest that we have not done a good job of breaking down barriers to health care for low-income families in Minnesota."

Infant Mortality: How Do We Fare?

Minnesota and the country as a whole have seen great declines in infant mortality over the past 20 years—declines that are largely due to increasingly sophisticated technology and to medicine's ability to keep smaller and smaller babies alive. Where we haven't made much headway, though, is in reducing the number of children born prematurely. And we've made the least headway on that score among African American and American Indian/Alaskan Native infants.

Infant mortality statistics broken down by race for Minnesota, Minneapolis, and St. Paul reveal that the rates among African American and American Indian/Alaskan Native infants are two to three times the rate for white infants (Table 1). Moreover, the mortality rate for African American infants in Minnesota is higher than the rate for African American infants in the nation as a whole.

"A black child born here is more likely to die in the first year of life than a black child born in many Southern states," says Jim Moore, M.D., president of the Minnesota Chapter of the American Academy of Pediatrics. "We need to be very embarrassed about some of our mortality statistics for infants born to black and Native American mothers."

Most physicians and public health officials agree that isolating the reasons for this disparity will require new data gathering strategies. "We've done what we can on the medical side to bring the rates down," says Donna Petersen, director of Maternal and Child Health at the Minnesota Department of Health. "Now we need to look at the social reasons babies die." Unearthing

these reasons, adds Petersen, depends on our ability to move beyond the birth and death certificates and obtain more detailed data. "We've exhausted the ability of the data we currently collect to tell us what is going on."

A new data gathering strategy known as Project LID—which stands for "Lower Infant Deaths"—should shed light on the social and environmental reasons underlying infant deaths. The project, which is a part of a broader state Infant Mortality Reduction Initiative, involves a detailed review of all infant deaths in Minneapolis and St. Paul. A public health nurse visits the home and interviews the mother or parents of the deceased infant and asks about such issues as nutrition, housing, support systems, chemical use, transportation, environmental hazards, job status, and psychosocial stress. All of these factors, which are not immediately evident from a death certificate, are known to contribute to excessive mortality among infants, regardless of race.

What can physicians do? Physicians don't have to wait while projects such as this one sort out the relative contributions of social, economic, and cultural factors in infant deaths and suggest strategies for intervention. They can intervene now by giving women basic information about health-related behaviors.

For example, they can discuss the benefits of good nutrition and the hazards of smoking and drinking, says Mary Azzahir, executive director of Way to Grow, a school-readiness program that also works on prenatal care projects in high-risk areas. "All women, low-income or not, need to hear frequent and basic health education messages," says Azzahir. Such messages, especially if delivered convincingly by physicians, can make a difference and influence lifestyle.

Azzahir recommends weaving statements like the following into any encounter with a pregnant patient: "Did you know that women who don't smoke have healthier babies?" "Did you know that babies that weigh less than 5.5 pounds have a 40 percent chance of mental retardation?" She also suggests putting up posters and signs in waiting rooms containing messages that "jump out" at women: "What you are experiencing, your baby is experiencing." "You're a mom now; have you thought about how you eat and sleep?"

"Physicians have to make more of an effort to educate patients about the need to get in early for prenatal care," says Nordland. "Although we seldom have the luxury of being able to advise and intervene this early, if we know that a patient is trying to conceive, we can put her on folic acid to decrease the risk of her baby having neural tube defects. We can counsel her to avoid contact with chemicals and to stay out of hot tubs. We can stress that, once she is pregnant, she needs to be seen regularly to make sure the pregnancy is progressing well. We can then get a much better outcome in the long run—fewer congenital defects, fewer preterm deliveries—a much healthier, full-term baby."

Unfortunately, and all too often, women come in sporadically for prenatal care—maybe once or twice, then not at all. But, says Scott Dyer, M.D., physicians can take simple steps to keep these women coming in for prenatal care. "Patients value prenatal care and are more likely to return if they feel they're receiving personal attention and are not simply giving urine and blood samples and having a weight taken," says Dyer, medical director of Fremont Community Health Services in Minneapolis. "I don't know that you can sell patients on the logic of the connection between receiving prenatal care and having a healthy baby. But if you can give them attention, information, social interaction, and reassurance, they will come back for subsequent visits. Making patients feel at home and valued is the key."

Physicians of all specialties can intervene in a number of positive ways with any pregnant woman who comes to a practice from day one until her child is born, says Neal Holtan, M.D., medical director of the St. Paul Health Department. "All physicians know about fetal alcohol syndrome and fetal alcohol effects, and they should intervene in any instance where they think even a potentially pregnant woman is drinking." All physicians can and should consider similar interventions with diet and smoking, adds Holtan.

The physician as social worker

Assuming the role of health educator in the office or clinic setting is one thing; many physicians have readily embraced that role. But what can physicians do about larger and less tangible economic and social ills that don't lend themselves to ready cure by the medical profession? What can physicians realistically do, for example, if they discover that one of their patients has little money for food? What can they do if they learn that a patient faces domestic abuse or has a drug problem?

"In today's social and economic climate, in order for physicians to be more effective, there is an additional burden on them to know something about the supporting economics of the community," says Carolyn McKay, M.D., Minneapolis commissioner of health.

Moreover, if they are working with vulnerable populations, they have even more reason to know about the social service network and how they can connect their patients to it, adds Oberg.

However, there are very real obstacles to physicians assuming the role of social worker. Most physicians—especially those in private practice—face enormous economic pressures to see many patients a day and to keep visits short, limiting the time available for discussing patients' social or economic troubles. Besides, how can physicians do this job well when it's not what they have been trained to do—and when the panorama of social programs shifts daily as funding sources change?

As a pediatrician at Pilot City Health Center in Minneapolis, Eric Stull, M.D., recognizes the need for physicians to step outside their conventional medical role. "We have to attempt to find out about the social pressures and circumstances in people's lives," says Stull. "That's a part of our work. If a child has developmental delays or if a parent has chemical dependency problems, we need to refer them to the appropriate people and agencies."

Table 1

Infant mortality rates by race in Minnesota, Minneapolis, and St. Paul (1989-1991 averages).*

	Minn.	**Mpls.**	**St. Paul**
White	6.60	8.2	9.4
African American	18.96	19.8	19.3
American Indian/ Alaskan Native	14.48	21.6	9.8
Asian/Pacific Is.	4.51	6.1	5.9

* Infant deaths for every 1,000 live births.

Nonetheless, Stull is skeptical about physicians' ability to provide much more than the most basic of referrals. "In the 14 years I've been at Pilot City, we've had to do our own social work—and we're not good social workers. You really need someone who knows and understands the community and all of the programs out there, because they change all the time."

Physicians may not have the time to know about the entire array of social services available to pregnant women and children, but they can familiarize themselves with two or three of the more successful, long-running programs, says Laura Kadwell, acting director of the

Children's Defense Fund of Minnesota. They can also make resource guides available in their offices that list those services, or they can encourage staff members to become knowledgeable about the basic features of the social service "safety net" in place in Minnesota (see "A Social Service Primer," facing page).

According to Kadwell, even a basic awareness of the Women, Infants and Children (WIC) supplemental nutrition and education program can help tremendously. "We know that WIC reduces infant mortality and the percent of low-birthweight babies," says Kadwell. "Physicians can help by informing their patients about WIC and by trying to improve access to the program."

As an added benefit, WIC connects women and children to the health care system. As the program is structured, participants must be recertified every six months in order to continue to receive food vouchers. Recertification involves obtaining a hemoglobin, a height and weight, and a brief physical exam.

The WIC program has produced a number of "positive spin-offs" at Pilot City, says Stull. "WIC has really pulled people into the clinic. Every six months, when patients are recertified for the program, we're able to do physical exams, developmental assessments, immunizations, and lead levels, and we're able to get an update on what is happening with the family. WIC provides continuity of care at our clinic. A lot of these families are families we wouldn't otherwise see."

Besides providing basic health education messages and informing patients about WIC and a few other social services, physicians can get involved in a local professional or community organization or clinic that is working to lower infant mortality or to improve health care access generally (see "How You Can Help," page 16).

> "We have to attempt to find out about the social pressures and circumstances in people's lives. That's part of our work."
>
> –Eric Stull, M.D.

Much of what physicians can do takes place outside their offices, says Petersen. "They need to be a part of larger community efforts to say that they're not going to tolerate unwanted pregnancy, drug abuse, and so on. We all need to think broadly about infant mortality."

Access through outreach Physicians can monitor, screen, intervene, and offer health education and basic social referrals to pregnant women who have the insurance coverage, transportation, time, child care, money, and general wherewithal to make it to their offices; that's the easy part. The hard part comes with efforts to reach women who are not approaching the health care system to begin with.

Statistics on prenatal care reveal that expectant mothers of color are far less likely than expectant white mothers to seek prenatal care during the first trimester. In fact, the percentage of pregnant women of color who seek prenatal care as late as the third trimester of pregnancy or not at all is five times

A Social Service Primer

Minnesota has one of the best social service networks in the nation. This resource list can help physicians and their staffs connect patients with that network.

Following are some resource guides and social services that can help your patients meet some of their prenatal care, immunization, economic, family planning, learning readiness, or other special needs. The list is far from inclusive or exhaustive. It's simply a starting point for patients.

Success by Six Parent Directory 612/340-7628
This United Way directory is an easy-to-use compilation of nearly every social service available in the metropolitan area that could be of assistance to parents and their children—health care, child care, education, counseling, chemical dependency, nutrition, and more.

Also available are "Health Tip" cards that offer ideas and advice on all kinds of issues of interest to parents, such as immunizations, dental health, safety, and developmentally appropriate activities.

Women, Infants and Children 1-800/657-3942
WIC is a supplemental nutrition and education program targeted to low-income women and children. The goal of the program is to provide essential nutrients that are in greater demand during pregnancy and key growing periods.

Mothers and Children (MAC) 1-800/365-0270
MAC is a community nutrition program for women who are not eligible for WIC and who have children under age 6.

Minnesota Children With Special Health Needs 1-800/728-5420
This is an information and referral service available to parents who have children with special health needs. Some developmental assessments are available at no charge.

MinnesotaCare 1-800/657-3672
MinnesotaCare is a health plan designed for uninsured low-income individuals and families with children. It took the place of the Children's Health Plan in October 1992.

Aid to Families With Dependent Children (AFDC)
Hennepin County 612/348-3400
AFDC offers a range of cash assistance programs to eligible families—food stamps, medical assistance, energy assistance, and general assistance.

United Way First Call for Help 612/335-5000
United Way's resource representatives have access to a large database replete with information on nearly every social service imaginable. This free referral service can be used by anyone in the community and is a good place to start.

Family Planning/STD Hotline 1-800/783-2287
This service will answer questions about family planing issues and sexually transmitted diseases.

Way to Grow 612/377-1012
Way to Grow is a community-based school readiness program for families with children aged 0 to 6. This is an outreach program in the truest sense: staff members make home visits and connect people to a wide variety of health, education, and other support services in the community. There are no income requirements.

Special Delivery 612/673-3333
This is a program started by the Minneapolis Department of Health to help pregnant women get early prenatal care regardless of ability to pay. Special Delivery enables a woman to arrange a prenatal appointment, transportation, and child care with one phone call.

"New Moms' Immunization Packet"
Minnesota Council of HMOs 612/627-4301
Minnesota Department of Health 612/623-5237
The HMO Council and MDH have developed a packet of immunization information that is given to new mothers when they are discharged from the hospital. The packet is available at no charge to all hospital obstetrical departments in a number of different languages, including English, Spanish, Vietnamese, Cambodian, Hmong, and Laotian. Call the HMO Council or state health department to obtain packets for distribution at your hospital.

How You Can Help

A number of volunteer opportunities are available to physicians who would like to help improve patients' access to prenatal care, to immunization services, or to preventive care in general.

Hennepin County Medical Society/United Way Community Health Education Initiative
Contact: Patty Bowler 612/340-7427
The Community Health Education Initiative is now recruiting practicing and retired physicians to give health presentations in the schools. Several retired physicians now involved with the initiative are doing work with pregnant teens. The initiative will link physicians to volunteer opportunities with community clinics, with the Health Care for the Homeless Project, or with Way to Grow—an outreach program that works on several health-related projects.

Way to Grow
Contact: Mary Azzahir 612/377-1012
Way to Grow is recruiting physician volunteers to talk to parents about immunization in community forums planned for the spring of 1994. "We want to work with physicians who would like to have informal dialogues with parents about infectious disease and the importance of immunization," says Mary Azzahir, executive director of Way to Grow.

American Academy of Pediatrics, Minnesota Chapter 612/757-7805
The academy has two committees that do ongoing studies and make recommendations in the areas of infant mortality and immunization.

Community Clinic Consortium
Contact: Deborah Anderson 612/644-6555
The Community Clinic Consortium serves as an umbrella group for 16 community clinics that provide primary, preventive, culturally sensitive health care to underserved persons in the Twin Cities metropolitan area. Physician volunteers are always needed to work in consortium clinics.

Children's Defense Fund of Minnesota
Contact: Susan Castellano 612/227-6121
The Children's Defense Fund has two special project committees that are working on issues related to immunizations and infant mortality. Call Susan Castellano if you are interested in serving on one of these committees.

Minnesota Academy of Family Physicians
Contact: Virginia Barzan 612/331-2506
The academy has several representatives who serve on community task forces to study issues related to infant mortality and immunization.

Carondolet Life Care Ministries/ St. Mary's Health Clinics
Contact: Stewart Laird 612/690-7020
The Ministries has eight clinics in the Twin Cities area and one in Spring Lake Park/Fridley. All clinics serve the poor and underserved; there is no means testing or sliding fee. Volunteer physicians are needed to work in the clinics one-half day per month. Forty primary care physicians now work in the clinics; 30 specialists see patients in their offices at no charge.

higher than that for pregnant white women.

The Phillips neighborhood in Minneapolis, which has a large number of low-income African American residents, also has one of the highest rates of infant mortality in the state. Ironically, the neighborhood is home to hospitals that are known for their state-of-the-art technology and provision of high-quality care.

"My colleagues and I sit in the middle of the Phillips neighborhood, and time and again we see people who have not had preventive care," says Robert Jeddeloh, M.D., medical director of Emergency Services at Abbott Northwestern Hospital. "Patients either can't get in elsewhere or they won't go in. Some of them have not been treated with respect in other settings. Others face financial, language, or cultural barriers, or they simply don't know where else to go."

Jeddeloh has seen firsthand how poverty restricts health care access in the Phillips neighborhood. "Many of the residents here feel isolated and beaten down, and they don't reach out for services," he says. "On the other hand, our system doesn't reach out and find out how to work with them very well."

With these limitations in mind, Jeddeloh joined forces with the local Way to Grow program and the Community University Health Care Clinic to apply for a Robert Wood Johnson grant to improve access. The "Opening Doors" program they designed would send community workers from the Way to Grow program door-to-door to talk with people and discover the true barriers to obtaining health care. "We'd like families to tell us what the barriers are," explains Azzahir. "Then we'll use that information to train a team of people to break down those barriers."

What can physicians do day-to-day in their own practices to improve access? Jeddeloh suggests that they consider extending their hours to allow more working parents—especially low-income working parents—to visit their offices during the early evening, early morning, or noon hours. "The enormity of the social trends that affect health is overwhelming," says Jeddeloh. "It boils down to what you can do as an individual ... simple things like extending your hours or educating patients during an office visit."

Providers can also create a "user-friendly" environment, suggests Dyer. "That has less to do with having a specific program in place and more to do with having a variety of providers available and making sure there's enough time to spend with each patient. You get into the bind between that and financial reality. Now that subsidies are being cut back in community clinics, we're facing some of the economic pressures that physicians in private practice have faced for a while."

"All women, low-income or not, need to hear frequent and basic health education messages."

–Mary Azzahir

Like most physicians, Moore is well aware of those economic pressures. Because reimbursement for treating Medical Assistance patients is only about 70 cents on the dollar, says Moore, most private physicians are forced to limit the number of low-income patients they see. "If the fraction of your practice devoted to caring for Medical Assistance patients exceeds 25 percent, you're not going to make your payroll. Everyone in private practice knows that. Reimbursement for child health services provided in the physician's office is the single biggest issue in maintaining access for poor children."

Private pediatric offices have all but disappeared in urban Minneapolis, says Moore, largely because of the reimbursement problem. "The important thing to keep in mind about a suburban pediatric practice is that it's not terribly convenient or comfortable for an inner-city mom to pack up her kids in the car or put them on the bus and come sit in a waiting room filled with people who are much better off than she is. It's not that the door isn't open; it is. But there are social and cultural barriers operant here that very few suburban practices can solve."

It's clear that no one group can solve the complex social and cultural problems that contribute to a lack of access to preventive care for low-income women and children. The solutions will have to involve the collective thinking and action of many groups. A variety of community groups are seeking physicians to work on these problems from a number of angles (see "How You Can Help," facing page).

Immunizations: How Do We Fare?

Some innovative partnerships are also being formed in an effort to bolster immunization rates in the Twin Cities and elsewhere in Minnesota. Activity on this front is especially evident in St. Paul, where physicians and public health officials still frequently and ruefully refer to the measles epidemic of 1990. The epidemic—which was national in scope—translated into 462 cases of measles in Minnesota, three of which led to death. In St. Paul, 267 children had measles and 85 children were hospitalized with complications from measles. All three Minnesota deaths were of St. Paul children in the second year of life. All three children were Southeast Asian.

"That epidemic revealed the need to give a second measles immunization, and it revealed problems of very low immunization rates in certain subpopulations of St. Paul," says Richard Andersen, M.D., infectious disease

consultant at Children's Hospital of St. Paul. There were two segments to the epidemic, he explains: an older, largely suburban, Caucasian group of children who were underimmunized and a younger subset of preschool children who were largely Southeast Asian and unimmunized.

Currently, only about 61 percent of Minnesota children are adequately immunized by age 2; the rate falls to 44 percent in the Twin Cities. (The national public health goal is to have 90 percent of all 2-year-olds fully immunized, although the Minnesota Department of Health recommends different benchmarks; see Table 2 footnote.) Children of color have lower immunization rates than white children (Table 2), and low-income children of color with older siblings seem most likely to be underimmunized. An important caveat, however, is that the immunization rates for all racial groups in Minnesota are unacceptable—including the rates for white children.

Ninety-eight percent of Minnesota children are fully immunized by kindergarten because state law forces parents to have their children caught up by then. That rate is good, but, health officials are quick to point out, it's not good enough, since the time of greatest vulnerability for contracting infectious disease is when a child is under age 1. In addition, these illnesses have their most serious morbidity in children who are under age 2.

The price of delaying immunization until kindergarten can be seen in the current outbreak of pertussis, says Oberg, who has treated 10 cases of pertussis over the past two months.

At Children's Hospital of St. Paul, physicians have diagnosed a case of whooping cough once every eight days since July of 1992, says Andersen. Although final statistics on pertussis incidence in Minnesota for 1993 are not yet available, 141 cases were reported in the state in 1992—the most cases the state has had since 1976.

Pertussis is not a lethal disease for most children, yet the morbidity associated with it is underappreciated, says Andersen. "You can give antibiotics and make the germ go away, but children still spend seven to eight weeks convalescing with airway repair."

What Can Physicians Do?

To do their part to help improve immunization rates, physicians need to seize every possible opportunity to immunize patients, develop their own in-office tracking and reminder systems, and use their credibility and clout to erode the growing tide of anti-immunization sentiment.

No missed opportunities Physicians need to adopt a philosophy and a policy of "no missed opportunities" when it comes to immunizing children, says Andersen. They should ask about each child's immunization status and give vaccines even if a child comes to the office for a minor illness.

"A lot of kids come and go from the doctor's office and, for inappropriate reasons, don't get their shots," says Andersen. "Providers need to have a clear understanding of the very limited number of contraindications to vaccination." The condition that is most commonly (and mistakenly) thought to be a contraindication is a mild upper respiratory infection in a child who is otherwise well and has no fever, says Andersen.

At the Fremont Clinic, whether a child is seen for a runny nose, an ear infection, an injury, a respiratory infection, or any other number of conditions, one of the first things physicians do is review the child's immunization status and offer vaccines if the child is behind. "Vaccines are a priority," says Dyer. "We give them to kids who have viral infections or afebrile ear infections if we find they've fallen behind."

That approach is not as common as it should be, says Nancy Baker, M.D., president-elect of the Minnesota Academy of Family Physicians. She suggests that the medical mindset may actually be resulting in many missed opportunities to vaccinate. "Physicians typically are taught that there is one method, one setting, and one indication for providing immunizations: the well-child visit at age 2 or 4 or 6 [months]. But the reality is that opportunities can't be missed," says Baker, who is also a faculty physician with the Department of Family Community Medicine at St. Paul-Ramsey Medical Center. "That might mean loosening clinic restrictions and setting up new protocols so that anybody can walk in anytime and receive vaccines from a nurse. Being more flexible about this is in the best interest of kids—although it is not the way that many physicians were taught."

"Immunizations are just the tip of the iceberg. These kids are underimmunized because they're underassessed for all kinds of conditions."

–Patsy Stinchfield

Table 2

Completion rates for MMR, DTP, polio immunization at 2 years of age in Minnesota, Minneapolis, and St. Paul.*

	Minn.	**Mpls.**	**St. Paul**
White	47.3%	45.1%	41.4%
African American	28.1%	24.5%	25.1%
American Indian/ Alaskan Native	38.5%	37%	23.7%
Asian/Pacific Is.	25.7%	18.9%	14.3%
Hispanic	25.7%	30.8%	29.5%

*The Minnesota Department of Health (MDH) has developed a new system for measuring immunization rates for preschool-aged children. Under this system, MDH measures immunization rates at every month of age. In addition, goal points have been established at 4, 6, 8, 17, and 20 months of age. These goal points allow MDH to evaluate how well children are being immunized appropriately for their age. With this age-specific information and detailed geographic information (down to individual zip codes), the new method allows health officials to identify areas where improvement is needed and to target intervention programs to these areas.

In-office tracking

St. Paul Health Commissioner Katherine Cairns recommends that physicians have their staffs review their records periodically to make sure that the children they care for are up-to-date on their immunizations. "Why is it that my veterinarian can tell me when my dog is due for a shot, but [physicians] can't do the same thing for my babies?" asks Cairns. "Why can't we do that for our children?"

Opinions differ on whether private practice physicians have the staff time and resources to audit their patient records and send out immunization reminder cards. The cost of maintaining a tracking and reminder system couldn't be recovered by most private practice physicians, says Moore. "Some community clinics are able to [recover those costs] when they receive a separate bit of funding for that."

"It's complicated," agrees McKay. "Providers have trouble pulling their own records and developing tickler systems—knowing who started with them and who's staying with them and who's due for what this week or month."

For the short term, it appears that the pressure will be on private physicians to develop their own tracking systems, since the development of a centralized system at the state or county level is far from imminent. Physicians who are able to develop their own systems can then take the concept one step further, suggests Cairns, and generate "report cards" for their own practice or HMO, comparing the immunization rates of their patients to the state and national averages.

Battling parent resistance

Physicians also need to "do battle" with parents who resist having their children immunized, says Andersen. "We have a mission to be persuasive," he says. "In this age of consumerism and people-pleasing, we have to be willing to say, 'You've got the wrong idea about immunization.' We can't be afraid that people will check all the wrong boxes on their consumer satisfaction survey."

Andersen is troubled by what he refers to as the "sagging public will" to immunize children. "We're operating in new territory now," he says. "For the first time in history, every single person under age 45 has no recollection of serious childhood epidemic disease such as polio. We have a generation of parents making vaccine decisions in a historic void.

"The important element of public fear and awareness that was present through the early 1950s is no longer there," cautions Andersen. "This is a new generation of parents. They are a key part of the resistance equation."

Access through outreach

Eroding parental resistance through education is one of four key components included in the Children's Immunization Project that Andersen and his colleagues developed after the 1990 measles epidemic. The other components are provider education, a computerized tracking system, and community outreach.

The community outreach part of the project has been greatly assisted by the Minnesota Health Department's new method of generating zip code-specific statistics on immunization rates. The statistics have helped to isolate problem areas; that, in turn, has enabled Andersen and his colleagues to develop highly specific outreach efforts. "Our current focus is on the Southeast Asian community," says Andersen. "Only 14 percent of Southeast Asians [in St. Paul] are fully immunized by age 2. It's by far the lowest percentage of all ethnic groups. So we know that is an appropriate place to start."

Patsy Stinchfield, a pediatric nurse practitioner at St. Paul Children's and chair of the immunization project, has gone to public housing units with a team of interpreters and nursing students and gathered information from 130 families, most of them Southeast Asian. "We assessed shot records, asked what they thought were the barriers to immunization, provided some education, and referred people to primary care whenever we could," says Stinchfield.

"We want to avoid doing outreach for the purpose of immunizing a child one time only, with little or no follow-up on other issues," she explains. "Immunizations are just the tip of the iceberg. These kids are underimmunized because they're underassessed for all kinds of conditions."

> "Infant mortality and immunization rates are two of our best proxy indicators of access to preventive services."
>
> –Charles Oberg, M.D.

Connecting the Disconnected

Stinchfield's approach takes the concept of "no missed opportunities" one step further and applies it to the notion of seizing opportunities to connect children and families to the health care system so they can have a stable relationship with a primary care provider. Perhaps as much as anything, troubling immunization and infant mortality rates reveal the fragmented nature of the health care system and illustrate the need for comprehensive care that brings whole families into the medical fold.

As McKay notes, "The care of women during pregnancy tends to be disconnected from the immunization system. We separate the care of mothers from the care of infants: moms get obstetrical care, babies get pediatric care." As they work with families, physicians need to recognize these as ongoing family issues, says McKay. "If you're doing family planning or prenatal care, use that as an opportunity to remind parents that immunization is a part of it. Create a network—neither of these issues stands alone."

Debra Giel Adams is a health instructor and freelance writer in Minneapolis.

Our thanks to Children's Hospital of St. Paul and Capitol Child Care for assisting with the photography for this story.

MinnesotaCare Likely to Survive Federal Reform

An Assessment by Minnesota's Health Commissioner

Mary Jo O'Brien

Reform of the health system is a process that is both painfully fast and excruciatingly slow. Minnesota is in the third year of a detailed, multifaceted health reform implementation strategy that was crafted to avoid Washington roadblocks of regulation and inertia. Policymakers in Minnesota anticipate that the state's own comprehensive and bipartisan plan will not be in conflict with any national approach adopted by the federal government. In fact, the Clinton task force on health system reform borrowed key concepts being tested in Minnesota to construct its national proposal. It is no accident that the initial reform concepts proposed by the Clinton administration look, sound, and feel familiar to Minnesotans.

> "Even with substantial changes to Clinton's proposal, we fully expect the national plan to support MinnesotaCare's basic direction."

Just as Minnesota's plan evolved and matured during the last three years, the federal proposal is expected to change substantially. Now that President Clinton's proposal has taken the form of a bill, it must go through numerous committees and subcommittees before the first full congressional vote. After much discussion and incorporation of features from alternatives proposed by Congress, the final plan will be quite different from that proposed by the president September 22.

Even with substantial changes to Clinton's proposal, we fully expect the national plan to support MinnesotaCare's basic direction. Gov. Carlson's administration and legislative leaders are lobbying Congress to ensure that Minnesota's health care reform strategy will not be stalled or blocked by action *or inaction* in Washington.

MinnesotaCare vs. Proposed Federal Reform

Both the Clinton and the MinnesotaCare models base reform on managed competition in a multi-payer system. Significant similarities and differences between Clinton's proposal and MinnesotaCare are highlighted below.

Reformed delivery system

The MinnesotaCare strategy is based on reform of the health care delivery system through incentives to encourage development of integrated service networks (ISNs), a new kind of health plan that will be accountable for the cost and quality of health services provided to enrollees in specific communities. A regulated, all-payer system (RAPS) will be established to control the costs and quality of health services that are not provided through ISNs. The Clinton plan also encourages the development of new delivery models and encompasses the goals of administrative uniformity but has been less specific on what these models should be. We anticipate that our ISNs and RAPS will be viewed positively by Washington.

Regional alliances

President Clinton proposes using regional and corporate alliances for purchasing health care. These alliances would collect and distribute premiums to certified health plans and provide consumers with information on cost and quality. Alliances would offer a range of both HMO and fee-for-service plans. Alliances would be mandatory for all but the largest employers. Some of the president's policy experts are already backing off from health alliances as the primary element of a reformed health delivery system.

The Minnesota strategy does not set up mandatory purchasing alliances, although voluntary pooling arrangements are available for small employers, and the voluntary purchasing arrangements that have arisen among some medium-sized and larger employers continue without state interference. In Minnesota, collection of premiums will continue to be a direct transaction between the purchaser and the health plan.

Information on cost and quality will be collected under the guidance of the Minnesota Data Institute, a public-private partnership mandated by the Minnesota Legislature to direct and coordinate data collection efforts in Minnesota. Overall, the state's data initiative is intended to make information available to health plans, purchasers, and providers to help them bring costs down, and to make the health care delivery system accountable to the public by allowing comparisons of treatments and outcomes. The institute, which began operations this fall, will be run by a board of directors consisting of two physicians appointed by the MMA and 18 other members representing Minnesota hospitals, health carriers, consumers, group purchasers, nurses, teaching and research institutions, and state agencies.

continued

Cost containment

Minnesota's cost-containment program has served as a model for the federal proposal. Minnesota has begun gathering data on the cost and quality of care. The data will be used to monitor the system's efforts to reduce the rate of growth in Minnesota's health care spending by 10 percent each year for the next five years. The availability of such data will also support cost containment throughout the health care system by helping consumers and purchasers make informed health care purchasing decisions. Although the Clinton proposal also calls for an extensive collection of health care data, cost controls are enforced by competition for the alliances' business and by federal government restrictions on the growth of premiums.

Financing

Clinton proposes to finance the national plan primarily through employers, who would pay at least 80 percent of their employees' health insurance premiums. Subsidies or government assistance would be available to some employers who cannot afford the premiums. The White House calls for additional financing through increased taxes on cigarettes and a corporate fee to be paid by companies that opt out of the redesigned health system. MinnesotaCare is financed by enrollee premiums, a cigarette tax, and a 2 percent tax on medical providers.

Universal coverage

Whereas President Clinton's plan mandates health insurance for all Americans, MinnesotaCare does not currently require all Minnesotans to purchase health insurance; however, the Minnesota Health Care Commission is developing a plan that will lead to universal coverage for all Minnesotans. This plan will be submitted to the 1994 Legislature.

Where Minnesota Could Lose

Of concern with any reform at the federal level is the imposition of a nationally developed rate structure. As is the reality in the Medicare program, Minnesota may be penalized for its efficiency in providing high-quality

Health System Reform in Minnesota

As the nation considers its options for handling the health care crisis, Minnesota has moved into its third year of health system reform. In 1992, Minnesota enacted HealthRight as a result of an agreement between legislators of both parties and the governor. The original legislation included a new subsidized health plan for the uninsured, insurance reforms, new programs to improve rural health care, health care data initiatives, a purchasing pool for employers, and other strategies to address health care costs, quality, and access. These programs are financed by a cigarette tax increase and a 2 percent provider tax. Minnesota's comprehensive health care reform program is now known as MinnesotaCare.

Minnesota's cost-containment strategy was developed by the Minnesota Health Care Commission, which consists of 25 members representing consumers, physicians, employers, labor unions, providers, health insurers, and other major stakeholders. After six months of intense deliberations during the summer and fall of 1992, the commission reached a consensus on a cost-containment plan and forwarded it to the Legislature by a unanimous vote. The Legislature adopted the plan and the governor signed it. Regulations and detailed legislation are now being developed. Implementation of most components of the plan is scheduled to begin July 1, 1994.

Key Components of MinnesotaCare

Subsidized health coverage: A subsidized health program began providing health coverage for the uninsured in October 1992. The program is financed by member premiums and cigarette and provider taxes. More than 57,000 parents and children are currently enrolled in the MinnesotaCare program.

Individual responsibility: Wise decision making by consumers is key to MinnesotaCare. Initiatives are underway to educate consumers, introduce consumer incentives, and involve a wide range of people in achieving healthier communities.

Global limits on growth: The commissioner of health will enforce annual limits on the rate of increase in health care costs. The limits will reduce the rate of growth by at least 10 percent each year for the next five years, producing a savings to Minnesotans of about $7 billion by 1997.

Integrated service networks: Incentives will encourage the formation of integrated service networks, a new kind of health plan that will be accountable for the cost and quality of health care services provided to its members and communities served. Under the ISN system, providers and insurers will have incentives to prevent illness, improve quality, and control costs. Competition between ISNs will be facilitated and encouraged.

All-payer system: A regulated all-payer system will be established to manage the costs of all health care services that are not provided through ISNs. The all-payer system health care at costs much lower than the national average. States with poorly managed health systems could receive more federal aid if current reimbursement rates are "locked in" without acknowledgment of good management by some states, such as Minnesota. Also, depending on the financing mechanism used for health care traditionally financed through the Medicaid program, Minnesota could be financially penalized further for having developed a comprehensive health system for our low-income citizens. It is anticipated that states will be held to a "maintenance of effort"—an obligation to spend state dollars for subsidized health care at the same level as in a pre-reform base year while meeting spending requirements of the new reforms. Minnesota has a lower percentage of uninsured residents compared with many other states, in part, because of the public programs like General Assistance Medical Care and MinnesotaCare and the benefit and eligibility levels in our Medicaid program. Minnesota could be forced to pay more than its share if each state contributes equally but funding is allocated based on the percentage of uninsured residents, rather than some other measure of ability to pay. The discussion and debate regarding the definition of "maintenance of effort" will be a critical one for Minnesotans.

To date, President Clinton has supported flexibility in the federal system, recognizing that a model that works in one state may not work in another. If the national plan can avoid creating a top-down, micromanaged system, the chances of success will be much greater. Reform planning requires local flexibility.

The Minnesota Department of Health and the Minnesota Health Care Commission support a strategy of broad participation, flexibility, and community collaboration in developing a national health care plan. Similar strategies have resulted in successful implementation of MinnesotaCare.

During the months ahead, Minnesota's role in national health care reform will be critical, as Congress looks to us to share our experiences and to provide leadership for the nation. MM

Mary Jo O'Brien is Minnesota commissioner of health.

is a standardized payment and utilization review system that will be used by all payers other than ISNs. An initial goal of the all-payer system will be to reduce administrative costs for providers and insurers by creating a uniform payment system to replace the hundreds of systems currently used by payers.

Health care data: Data will be collected on utilization, costs, quality, and outcomes. An Information Clearinghouse will be set up to make this data available to health care purchasers and consumers. The system will be administered by the Minnesota Data Institute, a public-private partnership between the state and providers, employers, and insurers.

Rural health care: An Office of Rural Health has been created to undertake activities that enhance quality of and access to health care and ensure its availability in rural areas.

Antitrust protection: Competition is an important component of Minnesota's strategy. However, when providers or insurers can demonstrate that a collaborative arrangement will control costs and improve quality or access more effectively than competition, the state will sanction the arrangement to provide protection from state and federal antitrust laws.

Practice parameters: The commissioner of health, in consultation with an advisory committee, will develop and approve voluntary practice parameters. Providers who adhere to approved practice parameters will be protected from malpractice lawsuits, which will allow them to focus on effective medicine rather than defensive medicine.

Technology: A Health Technology Advisory Committee has been created to evaluate health care technologies to provide consumers, employers, providers, insurance companies, and the state with better information about the safety, effectiveness, appropriate use, and cost-effectiveness of medical technology.

Major expenditures: Health care expenditures greater than $500,000 must be reported to and reviewed by the commissioner of health.

Regional coordinating boards: Six regional coordinating boards have been created to provide regional response and serve as community forums for discussion of health care issues of concern. Through the boards, the public and private sectors are working together to achieve regional public health goals.

Insurance reforms: Reforms were made to the small group and individual markets. A genderless rating system has been implemented, as well as a limitation on the use of preexisting condition requirements. Rate bands limit the variations in premiums for these markets. Also, small employers have access to a less expensive benefits package that is guaranteed to be issued and renewed.

Primary care: As a result of MinnesotaCare, the University of Minnesota Medical School will work to increase the number of primary care graduates.

Minnesota Medicine is the official journal of the Minnesota Medical Association, and its purpose is to provide Minnesota physicians with timely information regarding all aspects of medicine so they can more capably serve their patients and more readily achieve their professional goals. Therefore, the editors are pleased to consider for publication clinical and health papers (clinical studies, reviews, case reports) and essays, letters, poems, and opinion pieces related to medical practice in Minnesota.

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Examples:

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National Surgical Adjuvant Breast and Bowel Project's Breast Cancer Prevention Trial

Katherine Giles, B.S.N., M.B.A., P. J. Flynn, M.D.,
Robert Dalton, M.D., and Richard Zera, M.D.

ABSTRACT

The Breast Cancer Prevention Trial is the largest breast cancer prevention study ever undertaken. Administered by the National Surgical Adjuvant Breast and Bowel Project, it is the first trial seeking to demonstrate whether a drug, tamoxifen, can prevent breast cancer in high-risk women.

The objectives of this trial are to determine whether tamoxifen is effective in 1) reducing the incidence of invasive breast cancer, 2) reducing breast cancer mortality, 3) reducing deaths from cardiovascular disease, and 4) reducing bone fractures. In addition, the study will evaluate side effects, toxicity, and the quality of life of all study participants.

Since June 1992, 114 centers in the United States and Canada have been recruiting women for the Breast Cancer Prevention Trial (BCPT), designed to assess whether the drug tamoxifen may prevent breast cancer. To date, more than 9,000 women are participating in the study, which will ultimately involve 16,000 women aged 35 or older who are judged to be at increased risk for developing breast cancer.

The trial, primarily funded by the National Cancer Institute (NCI) with additional support from the National Heart, Lung and Blood Institute, the National Institute of Arthritis and Musculoskeletal and Skin Diseases, and endorsed by the American Cancer Society, is being conducted by the National Surgical Adjuvant Breast and Bowel Project (NSABP), headed by Bernard Fisher, M.D. This group has pioneered dramatic changes in breast cancer treatment and surgical therapy. The objectives of the trial are to determine whether tamoxifen is effective in 1) reducing the incidence of invasive breast cancer, 2) reducing breast cancer mortality, 3) reducing deaths from cardiovascular disease, and 4) reducing bone fractures. In addition, the study will evaluate side effects, toxicity, and the quality of life of all participants in the study.

Justification for the Trial

Breast cancer in women is a major medical problem with significant public health ramifications. According to a National Institutes of Health (NIH) consensus development conference statement (June 1990), during this decade, more than 1.5 million women (about 150,000 per year) in the United States will be newly diagnosed with invasive breast cancer, and about 30% of them will ultimately die of the disease. Given estimated tumor doubling time and an annual rate of 150,000 new cases, there could conceivably be 1 million or more women with non-detectable biological and pathological breast cancer who are unaware they have the disease.[1]

Before the initiation of this trial, the only two strategies for reducing the impact of breast cancer were: 1) devising progressively better regimens for the treatment of clinically detectable diseases, and 2) identifying a greater number of non-palpable breast cancers by more widespread mammography screening. The BCPT offers a third investigative strategy: prevention. The trial evaluates the ability of a modality capable of interfering with the initiation and promotion of breast cancer.

The headquarters staff of the NSABP summarized the justification of the trial as follows: Any strategy to prevent breast cancer in otherwise healthy women must have several prerequisites. Strong laboratory evidence should indicate the drug's effectiveness in preventing breast cancer. Ideally, it will be effective in the clinical setting. The drug must be safe, especially for women who will receive the therapy but are not likely to develop the disease in their lifetime. Tamoxifen, a non-steroidal antiestrogen, is the most widely prescribed antineoplastic agent in the United States that has been used successfully to treat all stages of breast cancer. Trials have demonstrated tamoxifen's ability to reduce tumor recurrence and prolong survival when the drug is used as a single agent, in combination with chemotherapy for the treatment of advanced breast cancer, or as postoperative adjuvant therapy in stage I and II disease. Of particular importance is the observation that patients receiving tamoxifen have a 39% lower incidence of second primaries in the contralateral breast than patients who receive a placebo.[2]

Although tamoxifen acts as an anti-estrogen in breast tissue, research suggests that it acts like an estrogen in other parts of the body. Evidence indicates that tamoxifen alters lipid and lipoprotein metabolism, lowering serum cholesterol about 20%, with the principal change being in the low-density lipoprotein. As a result, tamoxifen may decrease mortality rates from myocardial infarction. A significant reduction in deaths from acute myocardial infarction was noted in a Scottish trial comparing tamoxifen to no treatment in women with breast cancer.[3]

In addition to the potential benefits of tamoxifen relative to cardiovascular disease, further studies have found that tamoxifen stabilizes bone density, thus lowering the risk of osteoporosis in women who receive it.[4] This is perhaps related to tamoxifen's partial estrogenic activity, which may decrease mineral loss in pre- and post-menopausal women.

Eligibility for the BCPT

Because age is one of the strongest risk factors for developing breast cancer, all women 60 or older (10% lifetime probability of developing cancer) are eligible for the trial. In addition, all women over 35 who have been diagnosed with lobular carcinoma in situ (LCIS) and not treated by mastectomy, radiation therapy, or systemic adjuvant therapy are eligible because their risk of invasive cancer is increased as much as tenfold.[5]

Other women aged 35 to 59 may be enrolled based on their score on a computerized breast cancer risk assessment model created by Mitchell Gail, chief of the Epidemiologic Method Section in the Biostatistics Branch of NCI's Division of Cancer Etiology.[6] Risk factors included in the model are age, number of first-degree relatives with breast cancer (mother, sisters, daughters), age at first live birth, number of benign breast biopsies, age of menarche, and presence of atypical hyperplasia. Women who have a relative risk at least as high as that of a 60-year-old woman also are eligible to participate.

In addition, women who meet the risk criteria undergo a review of their medical history to identify conditions that would make them ineligible. Women are ineligible if they:

- have a life expectancy of less than 10 years;
- have a history of invasive breast cancer;
- currently use Coumadin;
- currently use estrogens, progesterones, oral contraceptives, or androgens (must be off three months before participating);
- have had a prior malignancy, other than non-melanoma skin cancer or carcinoma in situ of the cervix, within the past 10 years;
- have a history of deep vein thrombosis or pulmonary embolus; or
- have a history of macular degeneration.

When a woman is eligible, interested in participating, and has signed informed consent, she will be randomly selected to receive either 20 mg of tamoxifen per day or a placebo for at least five years. She will undergo breast exams and blood tests at the start of the study, at three months, six months, and every six months after that. She will also have an annual mammogram and gynecologic exam. Patients will complete questionnaires on quality of life and lifestyle at each of these visits.

A Matter for Physician-Patient Decision

There has been much controversy to date about this study. It has been fully evaluated by the FDA, the National Institutes of Health (NIH), the NSABP, and local institutional review boards. At a congressional hearing, former NIH Director Bernadine Healy, M.D., described this study as one of the National Cancer Institute's most thoroughly reviewed protocols.[7]

The typical side effects that accompany the use of tamoxifen are hot flashes and, less frequently, vaginal discharge, menstrual irregularities, and skin rash. NSABP Protocol B-14 randomly assigned 2,892 participants to receive either placebo or tamoxifen twice a day for at least five years. Women with node-negative, estrogen receptor-positive invasive breast cancer were eligible. The accompanying table summarizes the symptoms experienced by patients following this protocol.

Serious side effects have occurred in small numbers of women and include the following:

- Uterine cancer: The BCPT consent form states, "An increased risk of uterine cancer has been reported with the use of tamoxifen. Existing data from several large controlled clinical trials using 20 mg tamoxifen show that nine of 3,097 women on tamoxifen developed uterine cancer (0.3%) versus four of 3,091 women not treated with tamoxifen (0.1%)."

All women in the study are required to have a complete pelvic exam on entry, one annually thereafter, and to have any abnormal uterine bleeding evaluated immediately with endometrial sampling.

- Hepatic cancer: The potential risk of hepatic cancer is mentioned in the consent form and is discussed with every patient. Worldwide, only

Symptoms experienced in NSABP Protocol B-14

	Percent patients experiencing symptoms	
Symptom	**Placebo**	**Tamoxifen**
Hot flashes	46	62
Fluid retention	29	31
Vaginal discharge	14	28
Irregular menses	18	24
Nausea	23	23
Skin rash	14	18
Diarrhea	13	10
Thrombocytopenia	0.4	1
Leukopenia	1	1

two cases of liver cancer in women using tamoxifen have been documented. Those two cases occurred in women using 40 mg a day, twice the currently used dose.

- Thrombophlebitis: The risk of thrombophlebitis is described to patients as an adverse effect of tamoxifen. Women with a history of deep vein thrombosis (DVT) or embolism and women taking Coumadin or heparin are not eligible for the study. The incidence of DVT in the B-14 trial was 1.3% for women taking tamoxifen versus 0.2% for those on placebo.
- Ocular toxicity: Rare ocular side effects have been reported in patients receiving tamoxifen for breast cancer. Because of the extreme rarity of the event, the true incidence is unknown. The NSABP is undertaking a cross-sectional study of a subset of B-14 patients to identify the true risk. In addition, women are questioned every six months about any vision changes. Those who have noted any change are referred for an ophthalmologic exam.
- Fetal risk: During the informed consent process, all women agree to avoid pregnancy because of the unknown risks to the fetus. Current policies will require pre-menopausal women to have a negative pregnancy test at the time therapy is initiated or to start the trial during their menstrual periods.

The American College of Physicians' "Guidelines for Counseling Post-menopausal Women about Preventative Hormone Therapy" states that the risk of hormone therapy may outweigh its benefits in women who are at increased risk for breast cancer. For other women (except those who have had a hysterectomy or have coronary heart disease or are at increased risk for coronary heart disease) the best course of action is unclear.[8] The potential adverse effects of tamoxifen are similar in type and frequency to those of estrogen-replacement therapy, and additional benefits in reduction of cardiovascular disease and osteoporosis may accrue from tamoxifen's estrogen-agonist effects on lipids and bone metabolism. Because post-menopausal estrogen-replacement therapy may be associated with increased risk of breast cancer for women with first-degree relatives with breast cancer, tamoxifen may be an option for this group of women.[1]

Summary

The purpose of the BCPT is to establish whether tamoxifen can prevent invasive breast cancer in women at increased risk for this disease, as well as reduce the incidence of myocardial infarction and prevent osteoporosis. Tamoxifen is the most commonly prescribed cancer therapy in the world. Knowledge of tamoxifen's safety and effectiveness has been established in treatment of women with invasive breast cancer. Its ability to prevent development of contralateral breast tumors in pre- and post-menopausal women has been shown in clinical trials of postoperative adjuvant therapy. Participation in a well-designed, controlled, clinical trial is the only way to determine tamoxifen's effectiveness and safety in the primary prevention of breast cancer.

Physicians interested in referring potential participants may contact the American Cancer Society at 800/ACS-2345 for the nearest screening center. Minnesota has three clinical centers coordinating the BCPT. Those centers and their principal investigators are: Duluth Community Clinical Oncology Program (CCOP), 218/725-3456, Robert Dalton, M.D.; Hennepin County Medical Center, 612/347-2810, Richard Zera, M.D.; and Metro-Minnesota BCPT Center, 612/928-1517, P. J. Flynn, M.D.

Katherine Giles is cancer control research director at Metro-Minnesota Community Clinical Oncology Program (CCOP), and P. J. Flynn is principal investigator. Robert Dalton is chief of oncology at The Duluth Clinic; principal investigator, Cancer Control, Duluth CCOP; and president of the Minnesota Division, American Cancer Society. Richard Zera is chief of surgical oncology at Hennepin County Medical Center.

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The Family and Medical Leave Act

What You Need to Know as a Medical Expert and an Employer

Kathleen A. Hughes, J.D.

The new Family and Medical Leave Act, which entitles qualified employees to take up to 12 weeks of unpaid leave, has special implications for physicians. Many will be asked to provide medical certification for patients who wish to take a leave of absence to recover from a serious illness or to take care of a family member with a serious illness, and others will be affected as employers. Because doctors will play a key role in administering this new law, they need to understand the requirements and certification issues involved.

Basic FMLA Requirements

The Family and Medical Leave Act (FMLA) entitles all eligible employees to take a leave of absence of up to 12 work weeks every 12 months. To be eligible, an employee must have worked at least 12 months for an organization that has at least 50 employees. Additionally, the employee must have worked at least 1,250 hours during the 12 months immediately prior to the first day of leave. Vacation, holidays, sick leave, and other paid time off do not contribute to the 1,250-hour total.

Two kinds of leave are covered by the FMLA. Parenting leave is provided to mothers and fathers so they can care for a new baby or an adopted or foster child. Such leave may begin at any time after the birth or placement but must be completed within 12 months following the event. An employer may require that the parenting leave be taken in 12 consecutive weeks.

Leaves for serious health conditions are more complicated. The FMLA specifies that this leave is available if an employee is unable to perform his or her job because of a serious health condition. An employee may also use the allotted time to care for a seriously ill parent, child, or spouse. (The law does not provide for domestic partners but may apply to common law marriages in states that recognize them.) The leave may be taken in consecutive weeks or on an intermittent or part-time basis. The employer may require that a physician certify that a serious health condition exists and that the employee is unable to work or is needed to care for a family member.

> “Determining whether a patient’s request for leave certification is appropriate is sure to cause many quandaries for the doctors involved.”

Certification for a Patient’s Serious Health Condition

Determining whether a patient’s request for leave certification is appropriate is sure to cause many quandaries for the doctor(s) involved. Let’s begin by looking at a patient with a serious health condition. Under the law, a serious health condition is an illness, injury, impairment, or physical or mental condition that meets at least one of four definitions:

- It involves any period of incapacity or treatment in connection with inpatient care.
- It involves any period of incapacity requiring absence from work, school, or other regular daily activities of more than three calendar days and involves continuing treatment by a health care provider.
- It involves continuing treatment by a health care provider and is either chronic, long term, and incurable, or so serious that, if not treated, it would likely result in incapacity lasting three or more days.
- It involves continuing treatment by a health care provider for prenatal care.

Voluntary or cosmetic treatments are not considered serious health conditions unless they require inpatient care. Routine physical examinations *are not* included; prenatal examinations *are* included.

When certifying a patient’s condition, the physician must document that the condition prevents the employee from performing essential job functions, either on a full- or part-time basis. This will obviously require that the doctor understand the nature of the patient’s workplace and job duties. For this reason, physicians can and should request a job description. They may also wish to consult with other doctors, dentists, chiropractors, or psychologists treating the patient before signing a request for a leave of absence. All the health care providers listed above are eligible under FMLA to certify a patient’s request for a medical leave.

Although to date no litigation related to the FMLA has occurred, the potential does exist. Doctors who certify patients for leaves from work may at some point end up in court if an employer wishes to challenge an employee’s disability status. Additionally, employers can obtain a second opinion to counter the determination made by an employee’s physician. Thorough documentation will be critical in protecting the certifying physician's hard-earned credibility—and to save valuable time away from more important work if a lawsuit between an employer and an employee ensues.

Certification to Care for a Family Member

Certification becomes more complicated when the individual requesting time off is a family member of the patient. The physician will be asked to certify that the relative's presence is necessary or would benefit the patient's emotional and psychological well-being. This rule applies to spouses, sons and daughters, mothers and fathers, and stepparents. The physician will need to determine who and how many individuals are needed to support the patient. He or she also will have to state the time period when the relative(s) will be needed full time, part time, intermittently, or possibly a combination of all three. To make an appropriate certification, the physician will probably find it useful to discuss the situation not only with the patient, but also with the family members who intend to participate in the care.

In any case, the doctor will be providing information about a patient's medical condition to individuals typically not covered by standard forms authorizing the release of such information. Therefore, all medical offices should revise their authorization forms for the release of medical information or adopt a new form to document the patient's consent to release medical information to family members and to the appropriate employers. The U.S. Department of Labor has developed a form for physician certifications. Medical offices should obtain and begin using this form as soon as possible. For copies of the form, call the Wage and Hour Division of the Department of Labor in Minnesota at 612/370-3371.

Many childhood maladies that require extended care by a family member are not covered by the FMLA because they are not technically considered a serious health condition. These include but are not limited to chicken pox, scarlet fever, strep throat, and influenza. In Minnesota, state law provides that employers must allow workers to use their own sick leave to care for sick children who cannot attend school or day care because of illness.

Finally, physicians will now face yet another administrative burden. Most patients will want their doctors to respond to their request for certification immediately, because employers are not required to allow leave until a physician has certified the need.

Doctors as Employers

The FMLA covers all medical offices that have had at least 50 employees during the current or prior calendar year. If the practice is organized as a professional corporation, physicians are considered employees. If the practice operates as a partnership, the situation is more complicated. Partners may be included as employees if they do not take an active and significant role in managing the business. In cases where the employee count would exceed 50 if partners were included, the practice should consult an attorney to assess the FMLA's implications for that business.

Employees are anyone on the payroll. This includes full-time, part-time, and causal employees (those who are on call and report to work as needed, even if only occasionally).

After determining that it is covered by the FMLA, a medical office must post an official notice to employees. If the practice has a personnel handbook or employee manual, it must revise the book to include a formal FMLA policy statement, including the employee's rights under the FMLA.

Each organization with 50 or more employees must decide how it will count the 12-month period in which leave may be granted. The choices are as follows:

- a fixed period such as a calendar year, fiscal year, or a year based on individual employees' anniversary dates;
- a 12-month period that begins with the date on which leave first was taken; or
- a "rolling" 12-month period measured backward from the date an employee uses any FMLA leave.

The third method is generally preferred. Although it's somewhat more complex, this method prevents an employee from using more than 12 consecutive weeks of leave; the other options do not.

Every time an employee requests a leave, the employer must provide a written statement describing the amount of leave granted and how the employee's share of insurance premiums are to be paid. The employer must continue to pay its share of health insurance premiums throughout the leave.

An important issue for medical offices will be part-time leave. Physicians will be eligible for leave under the FMLA in the same manner as other employees. Therefore, medical practices will have to decide how to handle situations in which a physician's own doctor states that the physician cannot be on call or handle full-time responsibilities. According to the law, the employer must accommodate every employee to the extent possible.

Employers who have fewer than 50 employees are not covered by the new federal law. However, those with at least 21 employees at any one site are covered by the Minnesota law, which provides for up to six weeks' leave for new parents at birth or adoption. Leave is allowed for employees who have worked for the employer at least half time and for at least 12 months.

AMA's Response

The American Medical Association commented on the FMLA in a letter it sent to the Department of Labor September 8. In that letter, the AMA points out that the Department of Labor has made the law family-friendly, but it questions whether the regulations are physician-friendly. The AMA notes that physicians may have to make tough calls on job descriptions they do not completely understand and handle situations with employers that may be fraught with politics. The AMA recommends that the law clearly state that payment for an initial medical certification is the employee's responsibility.

The AMA also recommends that, to simplify cases in which an employee and employer cannot agree on a health care provider, the law specify that the employee and employer abide by the decision of a qualified physician selected by the local or state medical society. Finally, the AMA strongly recommends that patient confidentiality be protected when the child of an elderly parent request FMLA leave to provide care. The AMA makes the point that the parent may not want the child to know the specific nature of his or her illness.

The AMA has presented these recommendations to the Department of Labor. For the time being, the law stands as described. Because new laws are open to broad interpretation, physicians should consult attorneys if they have questions about implementing employee policies or handling specific patient cases involving FMLA. MM

Kathleen Hughes is an attorney with Fredrikson and Byron's Labor and Employment Law Group.

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HHS' Latest Safe Harbors

Rural Providers and Investors Offered New Protection

Tobi Tanzer, J.D.

The U.S. government recently proposed eight new or expanded safe harbors describing provider business arrangements that would not violate the federal anti-kickback provisions.*[1] These new safe harbors would augment the 12 existing safe harbors promulgated by the Department of Health and Human Services' Inspector General's office during the last two years.[2] Rural physicians stand to benefit from the new safe harbors, which include three proposals intended to make it easier to attract practitioners and investors to rural areas. The other safe harbors cover obstetrical malpractice insurance subsidies, investments in ambulatory surgery centers and group practices, specialty services referral agreements, and cooperative hospital service organizations. The proposed safe harbors, which were published in the September 21, 1993, *Federal Register*,[3] are subject to change after HHS considers input it received during the 60-day public comment period following publication.

Rural Investments

Many facilities in rural areas have had particular difficulty complying with the current "small entity" investment safe harbor, which requires that no more than 40 percent of an entity's investment interests be held, and no more than 40 percent of its gross revenues be generated, by investors in a position to make or influence referrals to, or otherwise generate business for, the entity. Health and Human Services (HHS) proposes replacing this safe harbor with a more flexible rule that would allow any potential source of capital to invest in rural facilities. To avoid creating a "sham joint venture," at least 85 percent of the entity's dollar volume would have to be derived from services provided to people who reside in a rural area.† In addition, equal investment opportunities and terms must be offered to all prospective investors regardless of whether they are in a position to make or influence referrals to the entity.‡ Investment terms cannot take into account an investor's expected volume of referrals. Neither the entity nor any investor may offer the services or goods to passive investors on different terms than to non-investors, and neither may lend money to an investor to obtain the investment interest, or guarantee such a loan. Finally, all investment returns must be directly proportional to the capital invested.

> "Rural physicians stand to benefit from the new safe harbors, which include proposals intended to make it easier to attract practitioners and investors to rural areas."

Rural Recruitment

Because rural areas have had particular difficulty attracting practitioners, HHS has proposed a safe harbor to protect certain rural hospital recruitment practices. This safe harbor would allow rural hospitals to provide benefits that induce practitioners to establish staff privileges in or to relocate their practices to the area. Seven criteria would have to be met: The terms of the agreement must be specified in a written contract. The practitioner's new primary place of practice must be at least 100 miles from the previous location, and at least 85 percent of the practice's revenues must be generated by treating new patients. Benefits may not be provided under the arrangement for more than three years (with certain exceptions for health professional shortage areas). The recruiter cannot condition the agreement on the practitioner's referral business, and no restrictions may be placed on the practitioner's ability to establish staff privileges at or make referrals to any other facility. Benefits provided to the practitioner must not take into account the volume or value of any actual or anticipated Medicare or Medicaid referrals generated by the practitioner. Finally, the practitioner must agree to treat Medicare and Medicaid patients.

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* The federal anti-kickback statute,[1] formally known as the Medicare and Medicaid Patient and Program Protection Act of 1987, outlaws offering or receiving anything of value in exchange for referring Medicare or Medicaid patients or for generating other business reimbursable under Medicare or Medicaid.

The new proposed safe harbors are subject to change after HHS considers input it received during the 60-day public comment period, which ended November 22, 1993. Until finalized, the proposed safe harbors offer no protection for arrangements that would otherwise violate the federal anti-kickback statute. In addition, protection will only be available if *all* criteria of the *final version* of each applicable safe harbor are satisfied.

† HHS is proposing that the definition of "rural areas" be that used by the Office of Management and Budget and the Bureau of the Census.

‡ References to referrals include patient referrals as well as other business generated by or on behalf of a provider.

HHS is also considering making the existing sale of practice safe harbor available to rural hospitals, provided that the hospital's recruiting program complies with the safe harbor for practitioner recruitment. The existing safe harbor dealing with practice sales currently offers protection only when a physician purchases a retiring physician's practice.

Obstetrical Malpractice Insurance

Under this proposed safe harbor, hospitals and other entities could pay for obstetrical malpractice insurance for physicians practicing primary care in health professional shortage areas. Basically, the same criteria apply as those outlined above for rural recruitment, but a few requirements differ: At least 85 percent of the practitioner's obstetrical patients treated under the malpractice coverage must live in an area designated as having a shortage of primary caregivers, and the insurance premium must be calculated based on a bona fide assessment of the liability risk covered under the policy. Unlike rural recruitment benefits, safe harbor protection of obstetrical malpractice insurance payments is not limited to three years.

ASC and Group-Practice Investments

Under another proposed safe harbor, surgeons could invest in certain ambulatory surgical centers and refer patients to such facilities if they personally operate on these patients, and if the only investors in the ASC are surgeons who are in a position to refer patients there. The logic behind this safe harbor is that the center would then be an "extension of the physician's office practice." The surgeons must agree to treat Medicare and Medicaid patients.

A related safe harbor would protect payments to investors if all were members of the same group practice and personally liable for the obligations of the group practice. HHS proposes to use the definition of "group practice" that is used in the Ethics and Patient Referrals Act.[4]

Many of the same rules that apply to rural investments also apply to these investments. Terms must not take into account an investor's expected volume of referrals. Neither the entity nor any investor may lend money to another investor to obtain the investment interest, or guarantee such a loan. All investment returns must be directly proportional to the capital invested.

Specialty Services Referral Agreements

This proposed safe harbor would allow a provider to refer a patient for specialty services in exchange for an agreement that the patient will return to the referring physician at a mutually agreed upon time or circumstance. The referral would have to be outside the expertise of the referring provider and within the expertise of the other provider. The referring parties would not be permitted to pay for the referral; the only permitted payments under such an arrangement would be those made directly by third-party payers or the patient, unless both referring providers belong to the same group practice.

Cooperative Hospital Service Organizations

Payments made between a Cooperative Hospital Service Organization (CHSO) and its patron hospital would be protected under this safe harbor if both are 501(c) (3) tax-exempt organizations, the CHSO is wholly owned by two or more patron hospitals, and patron hospital payments to the CHSO are for bona fide operating expenses of the CHSO *or* CHSO payments to the patron hospital constitute a distribution of net earnings required under section 501(e) (2) of the Internal Revenue Code.

Conclusion

The proposed safe harbors are subject to change based on public comment. They will provide no protection to business arrangements that would otherwise violate the federal anti-kickback law, unless and until they are finalized by HHS.

This article simplifies each of the proposed safe harbors for the sake of conciseness; providers are encouraged to consult with their attorneys and other advisers for a more complete picture of the proposed safe harbors and their possible ramifications. MM

Tobi Tanzer is an attorney with the Minneapolis law firm of Oppenheimer Wolff & Donnelly.

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2. 42 C.F.R. § 1001.952.
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CHILDREN

(continued from page 7)

backyard garden. Racewalking is another hobby. “I thought for years I could never fit exercise in with these kids and this job, and then I finally found something that allows me to be with my friends and be outside.”

This year, with her Bush fellowship, Nyberg is working on a master’s in public administration at Harvard, a long-desired goal. And next summer, she may work at the White House with Maggie Williams, Hillary Clinton’s chief of staff.

But Nyberg *will* be back, to Minnesota and to the Children’s Defense Fund, and she’s likely to still be dissatisfied and disconcerting. “If I could make things better, that would be good,” she says, appraising her tenure at CDF. “But our goals are so modest compared with how fast social forces are throwing kids into poverty and chaos. My work is slowing down the rate of decline.” **MM**

Douglas Clement is a Minneapolis-based free-lance writer.

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The MMA Peer Review Program

Determining the Profession's Standard of Knowledge and Expertise

C. Randall Nelms Jr., M.D.

Three potential methods of health care delivery are emerging as reform is implemented in Minnesota—delivery through a system run by megacorporations, a single-payer system, and a physician-driven system. Eventually, one system will predominate, and the most logical and cost-effective would be a physician-driven system, such as that run by clinics without walls. Such organizations give the physician greater control over the delivery of health care, profits are not paid to outside stockholders, and delivery of quality health care is the primary goal.

Such a system is only possible if we maintain control over our profession. To further this goal, the MMA has initiated a peer review program. In 1990, the MMA House of Delegates adopted a resolution that asked the MMA to work with the Minnesota Hospital Association to develop a voluntary peer review support system to assure the continuation of effective and independent physician-directed peer review in Minnesota. The resolution noted that, for physicians, only peers are qualified to conduct peer review and that geographic isolation and marketplace competition can hamper the peer review process.

In September of 1991, the House of Delegates adopted another resolution. It called upon the MMA to "seek active participation by physician representatives in data initiatives designed to improve the quality of medical care" and to "provide a confidential peer review service utilizing physicians for the analysis of data and the education of physicians." The resolution also asked that the MMA "facilitate physician involvement in all aspects of data collection, analysis, dissemination, and peer review," and "implement appropriate peer review programs to meet the needs of hospitals and the requirement of state legislation." In 1992, the state passed MinnesotaCare, specifying that the MMA may be required to conduct peer review for purposes of the state data initiative.

> "The MMA's peer review program will enhance medicine's image by addressing problems within the profession."

The American Medical Association strongly supports physician-directed peer review and encourages state medical organizations to become involved. The MMA is one of the few state medical societies to become involved in peer review.

The MMA's program, which will focus on physician education, has many purposes. It will conduct peer review for members and, in certain circumstances, non-members. It will provide peer review services for complaints brought to the attention of the MMA, and it will provide a means of voluntarily resolving disputes or problems specific to quality care. In addition, the program will enhance medicine's image by addressing problems within the profession. The public will be assured that the medical profession is monitoring and, when necessary, educating and disciplining its members.

The MMA will have both an "internal" and an "external" peer review program. Internal peer review will be conducted for complaints brought against MMA members. It will offer physicians due process rights throughout the hearing and appeals process. Disputes or disagreements may be settled without full-blown investigations. When a full investigation is needed, the program offers an opportunity for the physician and complainant to provide information to the review committee.

External peer review will be used for requests from entities wishing to obtain an impartial, fair, thorough review by experienced physician peer reviewers of both MMA members and nonmembers. Such peer review will be conducted at the request of such entities as hospitals, clinics, the Board of Medical Practice, and the Minnesota Department of Health. The committee will conduct a review and provide the requesting entity a report with findings of fact, conclusions, and recommendations as appropriate. The requesting entity can choose to use or disregard the report.

The MMA's peer review program will assure the public that physicians are willing and able to address public complaints and organizational concerns about individual physicians. In addition, the program will support state efforts to monitor the quality of health care provided in Minnesota. On behalf of physicians, the MMA is committed to providing an educational service that will help those undergoing review improve their practice methods and outcomes. **MM**

People and Places Making Medical News

People

'U' Health System President

Gregory Hart, general director of the University of Minnesota Hospital and Clinic-Variety Club Children's Hospital, was named president of the newly formed University of Minnesota Health System (UMHS) in late October. Hart, who had been the hospital's general director since July 1992, assumed his new responsibilities immediately.

UMHS, which combines the hospital's clinical administration with the Medical School faculty physicians' organization, the University of Minnesota Hospital Clinical Associates, was approved in October by the university's Board of Regents. It was developed by a committee headed by Winston Wallin, chair of Medtronic's board and special adviser to university President Nils Hasselmo. The system was created to ensure a strong position for the university's clinical activities and the University Hospital within the state's health care marketplace and to increase administrative effectiveness and accountability. A governing board appointed by the Board of Regents will provide oversight and strategic direction.

MACVPR Person of the Year

The Minnesota Association of Cardiovascular and Pulmonary Rehabilitation honored **Robert Kelly, M.D.**, as its first Person of the Year. He was chosen for the award based on his leadership and work in promoting the development and growth of cardiovascular rehabilitation services throughout the state.

"Dr. Kelly has been a great spokesperson for cardiovascular programs following his own heart attack and bypass surgery in 1991. Since then, he has helped his local rural hospital raise funds for cardiac rehab equipment, served as a model for public information programs, and advocated for rural health care rehabilitation services," said MACVPR President Kathy Ahern in presenting the award.

Kelly, a past president of the Minnesota Medical Association, is a family physician in Grand Rapids. He currently serves on the Minnesota Health Care Commission as a representative of rural providers, and he was a member of the National Advisory Committee on Rural Health from 1988 to 1991.

NAHC Physician of the Year

The National Association for Home Care named **Masayuki Kasahara, M.D.**, Physician of the Year. The award provides recognition to a "physician who has excelled in the promotion and utilization of home care services."

Kasahara, an internal medicine specialist, has practiced at the Minneapolis Age and Opportunity Clinic in Minneapolis for 19 years, where he is medical director of its home health care agency.

Medical Alley Board Members

Medical Alley, the trade association for Minnesota's health care industry, elected new board members and officers at it sixth annual meeting in late October. **Jim Stice**, president of Flexmedics Corp., was elected chair of the association. Other officers include First Vice Chair **Peter Boman, M.D.**, chair of The Duluth Clinic; Second Vice Chair **Donald Maurer**, chair and chief executive officer of EMPI, Inc.; and Third Vice Chair **James Dixon**, president and chief executive officer of St. Paul-Ramsey Medical Center.

Other board members are **Scott Anderson**, president, North Memorial Medical Center; **Celia Barnes**, vice president of communications and corporate relations, Medtronic, Inc.; **Frank Brown**, president and chief executive officer, Pharmacia Deltec Inc.; **Al Eggert**, vice president, 3M Health Care; **John Grotting**, operations officer, HealthSpan; **William Jacott, M.D.**, assistant vice president for health sciences, University of Minnesota; **Tom McGoldrick**, vice president of corporate development, Minntech Corp.; **David O'Brien**, partner, KPMG Peat Marwick; **Delwin K. Ohrt, M.D.**, vice president and medical director, Blue Cross and Blue Shield of Minnesota; **Stephen Rogness**, president, Minnesota Hospital Association; **Margo Struthers**, attorney, Oppenheimer Wolff & Donnelly; **James V. Toscano**, executive vice president, Park Nicollet Medical Foundation; and **Marlene Travis**, president, Health Risk Management.

Places

MMA Awarded for 1993 Anti-Violence Initiatives

The Minnesota Medical Association was recognized at a luncheon hosted by Lt. Gov. Joanell Dyrstad for organizations and individuals throughout the state who have worked to end violence in Minnesota. The MMA received an award for its 1993 family violence prevention initiative. The association is working to educate both medical professionals and the public about the signs and causes of domestic abuse.

Also receiving awards were the city of Grand Rapids for its collaborative approach to violence prevention; the Harriet Tubman Women's Shelter for its broad-based advocacy programs on behalf of Minneapolis victims of domestic abuse; the 2600 Long-fellow Avenue South block of Minneapolis for its grassroots, all-volunteer work to drive out five crack houses and engage citizen patrols in the neighborhood; and Frank Wharton, a youth advocate at Central High School by day and a musician in the evening, for his hundreds of hours spent as an informal mentor to youth.

St. Cloud Hospital Starting Residency Program

St. Cloud Hospital is starting a family practice residency program in an effort to attract physicians to central Minnesota, which currently has a shortage of physicians. The $3 million to $4 million program will begin in July 1996 and will place four residents each year. The hospital plans to open a new clinic nearby as a practice for the residents. In addition to a physician program director, it plans to hire three more physicians as full-time faculty members and 15 to 20 support personnel, including nurses and record-keepers. The program might work with rural clinics in the area to give students experience in rural medicine. Most of Minnesota's family practice residency programs are in the Twin Cities, which makes it difficult to attract the students to rural Minnesota.

'U' Establishing Family Practice Program in Waseca

The University of Minnesota announced in November that it plans to set up its first rural family practice training program in Waseca, Minnesota, in an effort to encourage doctors to settle in small towns after completing their residencies. As part of MinnesotaCare, the state Legislature mandated that the university set up a rural family physician program outside the metro area.

The family practice residents assigned to the program will spend their first year of training in the Twin Cities and their last two years in the Waseca area. The program is scheduled to start July 1, 1995. Four residents will be assigned to the program each year. The university will appoint a full-time medical director to supervise the residents, and some local doctors will help in training.

Five regional medical centers from outside the Twin Cities area and 77 hospitals and clinics applied for the family practice residency program. A task force with representatives from the university, the Minnesota Medical Association, the Minnesota Academy of Family Physicians, and the Minnesota Hospital Association chose the Waseca site, which includes the Immanuel-St. Joseph's Hospital in Mankato, the Mankato Clinic, the Waseca Area Memorial Hospital, and Waseca Family Physicians.

'U' Receives NCI Award

The University of Minnesota Cancer Center has received a $412,416 construction grant award from the National Cancer Institute of the National Institutes of Health. The award will be used for the design and construction of research space in the 82,000-square-foot Masonic Cancer Research Building planned for construction to begin in February. The new building will house the university's Cancer Center, which was formally dedicated in August 1991. When completed in 1996, the building will house cancer researchers and facilities from throughout the university in one location.

The award, which was given to the university because of its expertise in cancer research and patient care, will help fund space for research programs in bone marrow transplantation, gastroenterology, genetics, epidemiology, molecular etiology and therapeutics, childhood cancer, and breast cancer.

Mayo Launches Transport Service

Mayo Clinic has introduced Mayo Air^{SM}, a service that uses jet and propeller aircraft to transport critically ill adults, adolescents, children, and infants from anywhere in the world to Mayo or any other medical center. The service complements the clinic's existing Mayo One air medical transport service, which transports patients in a 150-mile radius of its bases in Rochester and Eau Claire, Wisconsin. Mayo Air carries patients from anywhere in the United States and the world, serving relatively stable patients.

Mayo Air's team of adult, pediatric, and neonatal critical care nurses and respiratory therapists provide care on all flights, during which they have on-line radio and telephone access to Mayo doctors trained in adult, pediatric, and neonatal critical care. Mayo doctors trained in emergency medicine and critical care services also accompany nurses and respiratory therapists on selected flights. Modular equipment allows Mayo Air to transport patients on jet aircraft or fly on commercial airlines.

Diabetes Center Receives Award

The HealthEast Diabetes Resource Center, an educational service for patients and health professionals, has been recognized by the American Diabetes Association for its "high quality diabetes education, which is essential to diabetes treatment." The association recognizes programs in an effort to encourage quality education based on national standards.

HealthEast's center offers an American Diabetes Association Managing Diabetes Class for individuals with Type II diabetes, outpatient insulin orientation, insulin adjustments and monitoring, a gestational diabetes program, nursing and nutrition consulting, and patient support groups.

Socioeconomics

HealthPartners Expands, Offers New Products

As part of its expansion into greater Minnesota and Wisconsin, HealthPartners, parent company of Group Health and MedCenters, is adding three medical group practices to its provider network. The clinics include two Wisconsin locations, New Richmond Clinic, S.C., and Hudson Physicians, Ltd., and one Minnesota location, Hutchinson Medical Center. The three clinics add 31 primary care physicians and general surgeons to the more than 3,000 providers available to HealthPartners members. The first members who will be able to use these sites are members of Choice Plus, the health plan offered through the Twin Cities-based Business Health Care Action Group.

Integrated Health Care Delivery System: Shared Vision and Collaboration are Key Elements

Over the last months, Medica has been actively preparing to meet the challenges created by a changing marketplace and health care reform. Throughout this planning process, Medica has actively sought providers' opinions and advice in developing a new framework for future relationships.

A key element of this framework is Medica's concept of an integrated Health Care Delivery System. This model contemplates a *seamless* alignment and link between Medica and provider networks to deliver health care based on *collaboration* and *shared responsibilities.* Our philosophy embraces the need to establish *long-term* relationships with providers where all participants support quantifiable continuous improvement of clinical and administrative processes and outcomes.

In many ways, this model is an evolution of the direction Medica has taken in recent years with regard to its provider programs and activities; however, it also entails a conscious decision to restructure our organization to align resources in a more effective manner. Medica believes this new model will require both Medica and providers to be freed of constraints by imposed traditional roles.

Medica is seeking to develop long-term relationships with physicians, hospitals and other health care providers. The goal is to progress from negotiated relationships to collaborative relationships, allowing health care providers to become partners, not customers.

Driven by customer expectations, our medical delivery system will reflect a balanced perspective that considers service attributes including quality, cost and efficiency. To support these concepts, Medica has taken an initial step by realigning all of its medical delivery related functions into one cohesive unit.

The next months will begin an era of change, as we respond further we expect significant adaptation to the new environment. The active involvement of providers in this process is an essential component to forming an effective delivery system that meets customers' demands.

The combined efforts of Medica and providers to achieve a shared vision and collaborative strategies in delivering health care will ultimately strengthen the quality and efficiency of our health care delivery system.

Medica's mission is to be the leader in improving the quality, affordability and accessibility of health care.

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HealthPartners also announced new products that offer the Group Health and MedCenters Health Plan networks together for the first time. The new products, called HealthPartners and HealthPartners Choice, will provide purchasers with a broad network of providers, including nearly 200 primary care clinic sites and 30 hospitals. Two of Minnesota's largest multispecialty medical practices, Group Health and Park Nicollet, are among the 3,000 primary care and specialty groups that will provide care. The products are being offered to employers with 30 or more employees, and memberships will be effective January 1, 1994.

Rural Hospitals Receive Grants

Minnesota Commissioner of Health Mary Jo O'Brien announced in November that 11 rural Minnesota hospitals will receive grants from the Rural Hospital Planning and Transition Grants Program. The Minnesota Legislature created the grant program in 1990 to assist small rural hospitals and their communities develop strategic plans for preserving access to health services or implement transition projects to modify the type and extent of services provided.

The hospitals receiving funding are Swift County-Benson Hospital in Benson, Cloquet Community Memorial Hospital in Cloquet, Community Memorial Hospital in Deer River, First Care Medical Service in Fosston, International Falls Memorial Hospital in International Falls, Jackson Municipal Hospital in Jackson, Paynesville Area Hospital in Paynesville, Perham Memorial Hospital in Perham, Murray County Memorial Hospital in Slayton, Sleepy Eye Municipal Hospital in Sleepy Eye, and Tyler Healthcare Center in Tyler.

Aspen, Blue Cross to Merge

In preparation for the coming of integrated service networks, Aspen Medical Group and Blue Cross and Blue Shield of Minnesota have merged the two companies' business systems. Aspen has 120 doctors and other professionals in eight Twin Cities locations. The merger will combine some of the business and staff operations of the two companies, but both will still contract with other health care payers and providers.

HCFA Tests Higher HMO Reimbursement

In response to complaints that Minnesota's HMOs are penalized for providing low-cost care, the Health Care Financing Administration (HCFA) is increasing Medicare reimbursement for HMOs in the Twin Cities on an experimental basis. Currently, Medicare pays HMOs 95 percent of the average non-HMO cost in the county where the HMO's enrollees live. In Minnesota, the cost of providing care is about 29 percent less than in most other communities, so Minnesota taxpayers are paying to provide health care in other states with less efficient health care systems.

Under HCFA's experiment, managed care organizations such as HealthPartners and Medica will be reimbursed at 99 percent to 102 percent of the average non-HMO cost in 1994. The experiment, proposed by the Minnesota Council of HMOs, would run through 1996. Seattle, Honolulu, Portland, Oregon, and Rochester, New York, will also be included in the trial.

Durenberger Offers Reform Bill

Together with three Democrats, Sen. Dave Durenberger, R-Minnesota, has introduced a bipartisan plan for health care reform. Similar to Clinton's plan, it calls for competition among newly organized health plans to hold down costs, but Durenberger's plan is less extensive. It does not require employers to pay for health benefits, and it includes no government price regulation. Also, it would not guarantee coverage for all Americans.

"I believe this is a workable middle ground among the bills that are proposed by the administration and Democrats and Republicans in both the House and Senate," said Sen. John Breaux, D-Louisiana, the plan's lead Democratic sponsor in the Senate. Some business groups and insurers have voiced support for the bill, but some consumer groups have said they oppose it.

MDH Endorses Hepatitis B Vaccine for Infants, Adolescents

The Minnesota Department of Health is recommending that all infants and adolescents at about age 12 be vaccinated against hepatitis B, making Minnesota the first state to recommend that all adolescents be immunized against the virus. Previously, vaccination efforts were aimed only at high-risk individuals, such as children whose mothers are carriers and adults with multiple sex partners or who inject illicit drugs. About a year ago the Centers for Disease Control and Prevention recommended that all infants get the vaccine so they are protected when they enter the high-risk years. Initially, the plan is to make hepatitis B immunization part of the standard medical practice rather than include it under the school immunization law.

Rates, Trends, Data

MDH Analysis Reveals Little Change in Infant Death Rate

The infant death rate in Minnesota decreased from 7.5 to 7.1 deaths per thousand live births between 1991 and 1992, equaling the all-time low infant death rate recorded in 1989. State health officials cautioned, however, that the apparent decrease between 1991 and 1992 was not statistically significant—that it may have been the result of random variation in the number of infant deaths in the

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state. In addition, officials say the infant death rate is still much higher among some groups of Minnesotans (see cover story, page 10). The 1992 infant death rate for African Americans in Minnesota was 14.5 deaths per thousand births, and the rate for Native Americans was 18.9 deaths per thousand births.

The new figures are based on an analysis of information from birth and death records for calendar year 1992, completed recently by the Minnesota Department of Health. The new analysis found little change in other major indicators of maternal and child health. The percentage of babies born before 37 weeks of gestation remained at 8.8 percent between 1991 and 1992, and the percentage of babies weighing less than 2,500 grams at birth decreased from 5.3 percent to 5.2 percent.

During 1992, 3.4 percent of women giving birth didn't receive any prenatal care until the last three months of pregnancy—or received no prenatal care at all. That compared with 3.7 percent during 1991. Continuing a long-term trend, the percentage of births taking place out of wedlock was up slightly to 22.9 percent. In 1980, only 11.4 percent of births in the state occurred out of wedlock.

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Death certificate data for 1992 revealed little change in the leading causes of death. Heart disease accounted for 29.2 percent of all deaths, cancer for 24.4 percent, and stroke for 8 percent.

Measles Cases at Record Low

The nation's battle to vaccinate children against measles following the recent epidemic in 1989 to 1991 has succeeded, announced the Centers for Disease Control and Prevention. Measles cases in the United States hit an all-time low for the first six months of this year, with only 175 cases reported, none in Minnesota. This is a 99 percent decrease from the nearly 14,000 cases reported for the first six months of 1990, at the peak of the epidemic.

During the 1989-1991 measles outbreak, federal, state, and local officials launched a major campaign against the disease. Vaccination rates among 2-year-olds increased from 65 percent in 1985 to about 83 percent in 1991, the latest year for which statistics are available. However, a CDC official warned that because about 20 percent of preschoolers have not been vaccinated against the measles, a resurgence could occur. And vaccinations for other diseases are worse. Estimates for 1991 indicate that levels for four doses of diphtheria, tetanus, and pertussis are probably no better than 45 percent, and levels for three doses of oral polio vaccine are probably no better than 55 percent.

Medical Research

Tests Help Detect AUTIs in Pregnant Women

Urine dipstick testing and Gram's staining were both superior to urinalysis in detecting asymptomatic urinary tract infections (AUTIs) in pregnant women, according to a Mayo Clinic study published in the October 27, 1993, *Journal of the American Medical Association.* John W. Bachman, M.D., of Mayo Clinic, and colleagues studied 1,047 pregnant women to compare the three different tests.

"Urinalysis has little value in detection of urinary tract infection compared with urine dipstick and Gram's stain, and it should not be used in screening for AUTI," write the researchers. "Gram's stain (a method of identifying bacteria) is a promising screening approach—more costly than the dipstick test—that can provide results on the same day the specimen is collected. Urine dipstick testing for nitrites detects AUTI in follow-up visits at relatively low costs, especially if the urine is being tested for sugar and protein."

Healthy Living Pays Off Later

A University of Minnesota follow-up study shows that the benefits of eating right, losing weight, and quitting smoking may not show up for decades. Marcus Kjelsberg, a professor at the university's School of Public Health, followed up on an earlier trial that had encouraged a group of middle-aged men at high risk for heart disease to improve their lifestyles. In the original study, which ran from the mid-1970s to 1982, men who were on a program to encourage them to quit smoking, follow a low-fat diet, lose weight, and take their medication for hypertension had only a 6 percent lower death rate from heart disease than those in a control group allowed to continue normal activities.

Kjelsberg and his colleagues decided to follow the two groups' survival rates after the original study ended. By 1985, the special group had a 10 percent lower death rate from heart disease, and by the end of 1990, the difference had grown to a little more than 11 percent. MM

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